

The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1725.—VOL. XXXVIII.

London, Saturday, September 12, 1868.

(STAMPED .. SIXPENCE,
UNSTAMPED.. FIVEPENCE)

M R. JAMES CROFTS, STOCK AND SHAREBROKER,
No. 1, FINCH LANE, CORNHILL.
(Established 1842.)

HOLDERS of mining shares difficult of sale in the open market may find purchasers for the same through Mr. CROFTS' agency. Also parties requiring advice how to act in the disposal or abandonment of doubtful mining stocks may profitably avail of Mr. CROFTS' long experience on the market in all cases of doubt or difficulty, legal or otherwise.

ROYALTON (Tin).—FOR SALE, 50 shares, at 20s. net.

M R. JOHN BUMPUS, 44, THREADNEEDLE STREET,
has FOR SALE the following shares, free of commission:—
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80 Anstralian United 50 Frontino, 15s. 6d. 25 Princess of Wales, 4s 6
(Gold), 15s. 6d. 15 Great Laxey, £18 1/2. 50 Redmoor, 3s.
30 Chiverton (10s. call paid), 9s. 9d. 5 Gt. Wh. Yor., £18 1/2. 30 South Darren.
15 Chiverton Moor, £6 7/8. 20 Hawton United, 3s. 100 Wheal Croftor, 3s.
50 Chontales, £2 1/2. 20 Mining Assoc., 11s 6d. 5 Wheal Seton, £2 1/2.
35 Don Pedro, £3 1/2. 10 Marke Valley, £7 8s. 50 W. P. of Wales, 7s. 3d
15 East Caradon, £2 17 6. 50 No Treskerby, 2s. 25 Wh. Grenville, £1 8 9
20 East Grenville, £2 17 6. 30 New Wh. Lovell, 17s 6d. 5 West Caradon, 4s 6d
10 East Lovell, £2 17s 6d. 25 Prosper United, 14s. 50 Yudanamutana, £3 6d
BUYER of Great Laxey, Snæfells, East Grenville, and Wheal Grenville at market prices.

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STOCK AND SHAREDEALER,
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Business transacted in the British Funds, Railway and other Stocks, Foreign Bonds, &c., on the usual commission, 1 1/4 per cent. on mining and other shares, above £2; and at £2 and under £2, per share.

Bankers: London and Westminster, Lothbury.

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Chiverton Moor £ 6 1/2 to £ 6 1/4. East Grenville 26s. to 28s.
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Wheal Uny 1 1/2 2. Chontales 2 1/2 2 1/2.
Wheal Mary Ann 19 20. Don Pedro (prem.) 2 1/2 2 1/2.
WHEAL MARY FLORENCE.—Full particulars of this rising mine on application to Mr. HUME.

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Every description of stock and shares BOUGHT and SOLD at close prices, free of commission.

LOVELL CONSOLS.—We are pleased to state that our anticipations of this property are being realised. The agent's report, which appears in another column, states the lode in bottom of the adit to be worth 20s. per fathom for tin, and from its appearance will, no doubt, still further improve. These shares should be secured at once, as they must advance directly the lode is cut in the next level. Plans of the district, and every information furnished on application.

The "Investment Circular and Financial Record" for September now ready, post free.

Bankers: London and Westminster.

JAMES SCOTT AND CO., STOCK AND SHAREDEALERS,
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J. S. and Co. are BUYERS and SELLERS, for cash or on the account, of shares in any of the undermentioned mines, at quoted or INTERMEDIATE prices (free of commission):—

Anglo-Brazilian 9s to 11s. Por. Phillip £18 9 to £11 3
Bedford Consols 14s 6d 15s. Prosper United 10s 12s 6d
Bedford United £ 1 1/2 £ 1 1/2. Prince of Wales 36s 37s
Chontales 2 2 1/2. Princess of Wales 2s 3s
Chiverton 3 1/2 4. Rossa Grande 17s 9d 20s 3d
Chiverton Moor 6 1/2 7. South Darren 1 1/2 1 1/2
Devon Great Consols. 410 430. St. John del Rey 20 1/2 21 1/2
Don Pedro (ex div.) 2 1/2 3. St. John 20 1/2 21 1/2
Drake Walls 6s 8s. West Chiverton 60s 61 1/2
East Caradon 2 1/2 3. West Caradon 1 1/2 1 1/2
East Carn Brea 4s 6d 5s. West Drake Walls 5s 7s 6d
East Lovell 6 1/2 7. West Prince of Wales 7s 9s
East Russel 2 1/2 3. West Wheat Seton 150 155
East Seton 3 1/2 4. Wheat Agar 7 1
Frontino and Bolivia. 14s 15s. Wheat Buller 5 7
Great Laxey 17 1/2 18 1/2. Wheat Chiverton 1/2 1/2
Great Retallack 3 1/2 3 1/2. Wh. Emily Henrietta 29 30
Great Wheal Vor 13 14. Wheat Grenville 1 1/2 1 1/2
Hilly Phillips 1 1/2 2 1/2. Wheat Mary Ann 19 20
Mark Valley 7 1/2 7 1/2. Wheat Seton 47 1/2 52 1/2
North Treskerby 9s 11s. Wheat Trellawny 8 9
North. Wheal Croft 1 1/2 1 1/2. Wheat Uny 1 1/4 1 1/4
Okel Tor 2 1/2 2 1/2. Worthing 2 1/2 3 1/2
Pestana 2 2 1/2. Yudanamutana 3 3 1/2
Money advanced on marketable mine shares at 5 per cent. per annum.

Buyers can have transfers registered prior to payment, if desired, on giving re-utable references.

J. S. and Co. having in their employ several of the most experienced and trustworthy mine agents in the United Kingdom, who periodically inspect on their behalf all the bona fide mines in Devon, Cornwall, and Wales, are enabled to accord to their friends and clients reliable advice as to the present and future prospects of mines they deem worthy the attention of investors.

References will be given to the Alliance Bank and the Bank of England.

J. S. and Co. can recommend several good low-priced shares likely to rise considerably in value within a few months.

M R. WILLIAM MARLBOROUGH, 1, GREAT ST. HELEN'S,
BISHOPSGATE STREET, LONDON, E.C. (Established 14 years), has FOR SALE the FOLLOWING SHARES, at nett prices:—

50 Bedford Consols, 15s. 50 Gian Alun, 5s. 1 Rosecliff & Tole, 22s.
20 Chontales, £2 2s. 9d. 5 Great Vor., 12 1/2 16s 3d. 50 Redmoor, 2s. 6d.
30 Chiverton, 8s. 9d. 5 Herodotus, £39 18 9. 20 Wh. Herodotus, 19s 9d
20 Don Pedro, £2 10 9 p.m. 20 Imperial Consols, 22s 6. 50 South Darren, 4s. 6d
40 East Russell, 2s. 6d. 5 Marko Valley, 27 7 6. 5 Tincroft, £19 18s 9
20 East Caradon, £2 18 9. 40 New Lovell, 15s. 2s. 5 Wheal Buller, £1 1/2
5 East Lovell, £7 1s. 1 New Seton, 4s. 2s. 20 West Caradon, 2s 3 9
30 E. Grenville, £2 14 3. 20 North Croft, 26s. 6d. 1 West Seton, £19 18s 9
50 Frontino, 14s. 6d. 23 Prince of Wales, 36s 9d. 5 Wheal Emily Henrietta
5 Great Laxey, £17 5. 50 Port Phillip, 32s. 3d. 20 Wh. Grenville, 2s 1/2 6d
10 Gt. Retallack, £3 8 9. 60 Prosper United, 10s 3 1/2. 50 Yudanamutana, 4 3/4 s.

M R. GEORGE BUDGE, STOCK AND SHAREDEALER,
No. 4, ROYAL EXCHANGE BUILDINGS, LONDON, E.C. (Established 20 years), is SELLER of the following shares at nett prices:—100 Royalton, 20s. 9d.; 5 East Lovell, £7 1/2; 200 Creb., 5 West Caradon, 2s. 6d.; 40 Prince of Wales, 36s. 100 Redmoor, 2s. 9d.; 25 South Herodotus, 29s. 9d.; 35 East Carn Brea; 100 West Tremenay, 9s.; 2 Wheal Seton, £49 3/4; 20 Great Retallack; 30 North Treskerby, 9s. 9d.; 40 South Darren; 25 West Maria and Fortescue; 50 Drake Walls, 5s. 9d.; 1 South Caradon; 5 Maes-y-Safn, £30 4; 50 Caldbeck Fells; 100 West St. Ives; 70 Tamar Valley; 30 North Chiverton; 80 Camborne Vean, 18s. 9d.; 100 Gwydyr Park, 3s.; 20 Great South Chiverton; 100 Gian Alun; 20 Chiverton; 30 Don Pedro, £3 1/2; 100 Anglo-Brazilian, 10s. 9d.; 40 Port Phillip, 30s.; 50 Rossa Grande, 18s.; 80 Frotino and Bolivia.

BUYER of 30 Bedford United; 80 Pendene; 50 West Godolphin; 5 Minera; 300 West Wheat Kitty.

M R. PETER WATSON has been in CORNWALL for the past ten days VISITING and OBTAINING INFORMATION respecting the leading DIVIDEND and PROGRESSIVE MINES. He will return to town early next week, and be PREPARED to ADVISE as to the PURCHASE or SALE of SHARES in the FOLLOWING MINES:—

Chiverton. Providence.
Chiverton Moor. South Caradon.
Devonport Consols. South Great Work.
Drake Walls. South Wheal Frances.
East Caradon. West Caradon.
East Wheal Grenville. West Chiverton.
East Wheal Lovell. West Drake Walls.
Great Wheal Vor. West Great Work.
Marke Valley. Wheal Butler.
New Wheal Lovell. Wheal Grenville.
North Wheal Chiverton. Wheal Mary Ann.
North Wheal Croft. Wheal Seton.
Prince of Wales. Wheal Trelewany.

PETER WATSON'S "WEEKLY MINING CIRCULAR AND SHARE LIST—SYNOPSIS OF CORNISH AND DEVON MINES" of Friday, 18th September, No. 497, price 6d. each copy, forwarded on application, will contain IMPORTANT INFORMATION on CORNISH MINES, and remarks on the present state of Tin, Copper, and Lead mines generally; with advice as to PURCHASES and SALES, &c. It will also contain information on the several Foreign Mines, and on the Metal Markets.

CORNISH AND DEVON MINES.—FOREIGN GOLD MINES.

PETER WATSON'S "WEEKLY MINING CIRCULAR AND SHARE LIST—SYNOPSIS OF CORNISH AND DEVON MINES," of Friday, Sept. 11, No. 496, Vol. X, price 6d. each copy, forwarded on application, contains information on the following mines:—

West Caradon. Drake Walls.
East Lovell. Wheal Uny.
West Great Work. English and Australian
Prince of Wales. Copper.
Tincroft. Scottish Australian.
East Grenville. United Australian.
With Statistical Information respecting the Tin Trade.

INVESTMENT OR SPECULATION.—A SELECTED LIST OF RAILWAYS, BANKS, MINES, COLONIAL SECURITIES, FOREIGN GOVERNMENT BONDS, &c., forwarded to bona fide Investors on application.

In addition to the high rate of interest many of the above are paying, there is now every probability of a great rise in market value.

PETER WATSON, STOCK AND SHAREDEALER,
79, OLD BROAD STREET, LONDON

(three doors only from Hercules-passage, entrance to the Stock Exchange).

Twenty-three years' experience.

(Two in Cornwall and Twenty-one in London.)

Bankers: The Alliance Bank, and the Union Bank of London.

References given and required (when necessary) in all the principal towns of the United Kingdom.

For particulars relating to a few mines and other subjects see article on page 649.

A Price List sent free on application.
Bankers: Alliance Bank.

M R. E D W A R D C O O K E,
FOREIGN AND BRITISH STOCK AND SHAREDEALER,
76, OLD BROAD STREET, LONDON, E.C.

Deals in all kinds of Foreign Stocks, and the shares of the various Gold Mines, also in the best Dividend and Progressive Mines.

For particulars relating to a few mines and other subjects see article on page 649.

A Price List sent free on application.

Bankers: Alliance Bank.

M R. W. H. C U E L L

Has REMOVED to 42, CORNHILL, LONDON, E.C.

WALTER TREGELLA'S, 122, BISHOPSGATE STREET WITHIN, LONDON, E.C., DEALS in all STOCKS AND SHARES, either for cash or the fortnightly settlement.

Bankers: The Alliance Bank.

M E S S R S. W I L S O N, W A R D, A N D C O.,
STOCK AND SHAREDEALERS,
16, UNION COURT, OLD BROAD STREET, LONDON, E.C.

BUYERS of New Great Consols shares.

M ATTHIAS GREENE, STOCK AND SHAREDEALER,
1, ST. MICHAEL'S HOUSE, CORNHILL, LONDON, E.C.

TAMAR VALLEY.—M. G. is confident this mine will prove a great success, and recommends the immediate purchase of the shares at their present low price.

A fine box of specimens can be seen at M. G.'s office.

I NTENDING INVESTORS.—The "FINANCIAL GAZETTE," published by Mr. Y. CHRISTIAN, should be consulted with a VIEW to the SAFE EMPLOYMENT of CAPITAL. It contains Original Articles, a Review of the Money Markets, and a selection of Investments paying 10 to 17 per cent., and such information as is necessary to guide intending investors.

6, Bond-court, Mansion House, London, E.C.

Bankers: Bank of England.

C HONTALES GOLD COMPANY.—FULL PARTICULARS of the DIFFERENT CLASSES OF SHARES can be obtained on application to Mr. J. H. MURCHISON, No. 8, Austin Friars, E.C.

Established Eleven Years.

Bankers: City Bank.

References exchanged in any part of the United Kingdom. Parties of well-known respectability can have stock prior to payment if desired.

W E S T W H E A L K I T T Y.

MR. REYNOLDS is still a BUYER of ANY NUMBER of THESE SHARES, for immediate delivery, at low rates. He has great confidence in the mine, and advises all his friends to average their holdings at present rates.

A prompt reply to buyers or sellers, by telegram or otherwise.

70 and 71, Bishopsgate-street Within, London, E.C.

M R. T. R O S E W A R N E , 81, OLD BROAD STREET,
LONDON, E.C.

T. R. has BUSINESS in the following shares, and SPECIAL BUSINESS in those marked *.

Anglo-Brazilian. East Seton. Rossa Grande.

*Bedford Consols. Frontino and Bolivia. St. John del Rey.

Original Correspondence.

BEST WORK, SUREST MONOPOLY OF BEST WAGES.

SIR.—So much daily arises in the progress of this transition state of the labour question not to be passed over without notice that my correspondence with you threatens to be a far longer series of letters than I first contemplated. I must dispatch this extra matter as briefly as possible, to leave room for the main subject of this communication, which well deserves the best attention both of men and masters. Your report of the great meeting of colliers at Whitley Wood Hall fully bears out the gratifying report I had seen of its tone and spirit. The resolutions given in page 640 of your Journal of the 5th instant are in every way creditable to the men, sensible, practical, and temperate. I quote particularly for easy reference to your pages, as these resolutions deserve to be studied again and again by men and masters, especially the second resolution, so frankly adopting a conciliation policy, and the third, giving proper attention to the all-important consideration of lessening, as far as possible, the danger from accidents. Let the principles of these excellent resolutions be fully carried out in the active policy of the Union, and the colliers will set an example to their fellow-workers in all trades, which self-interest is almost certain, ere long, to cause to be universally followed. Upon men of this stamp the windy, quarrelsome clap-trap of Mr. Mundella (inspired by his idea of the Sheffield standard of morality) falls harmless. They cannot fail to see how his speech, condoning and half defending crimes of violence, which do the good cause more injury than their worst enemies could desire, stamps him as one of the very worst enemies from whom, in times past, they have so frequently suffered—the demagogue coolly calculating on rousing the worst passions for his own selfish ends. The day of these men is well-nigh past, and I have hopes that even Sheffield will refuse to accept Mr. Mundella as the working man's friend.

The good news of the adoption of the Permissive Courts of Conciliation Act by the Staffordshire potters, and of the same system in another form in Nottingham, is somewhat dashed by the mistaken conduct of the master plate-locksmiths at Wolverhampton, in trying to ruin the co-operative competition by underselling them. Here we see how sorely a good Trades Union of the masters is needed, which would certainly have prevented such foolish embitterment of the quarrel between themselves and their workpeople, and such bad management of their own affairs in a business point of view. Their policy was clearly to let their men try to carry out co-operation if they chose, and go on their own way, conducting their business without reference to it, as you truly remark in noticing the matter in your last week's report from Staffordshire. Instead of showing the men how much they feared their opposition, they should patiently have watched their proceedings, waiting the time (almost certain to come) when their own experience of some of the difficulties masters meet with in business would have made them open to such a settlement of all disputes, on fair terms, as it is the real interest of the masters willingly to offer them. I notice that the folly of resorting to abortive strikes, instead of this policy of agreement, has received a further illustration in the unwise proceedings of the journeymen shoemakers in Liverpool. The masters there have—partly by succeeding in replacing them by non-Union hands, partly by sending work to other places—defeated the combination, and the men, scattered to get work, have actually done at other places the work of the very masters from whom they refused the higher wages offered at Liverpool. A well-managed Trades Union would have prevented such senseless policy.

A letter in yesterday's *Times* from Mr. Wheeler, C.E., commenting on the Rev. Canon Girdlestone's intervention on behalf of the agricultural labourer, demands a few words of notice. What he says of the change in farming by the introduction of machinery is all very well. It is true the tendency is to raise and educate both men and masters, and that the labourer suffers grievously from his ignorance. But it is not true that any influence of machinery, or improvement of agriculture, will at once enable men ground down to the lowest point to obtain sufficient wages. The degraded condition of manufacturing hands in days now happily almost forgotten, when their masters were heaping up colossal fortunes by the best machinery, proves this. This deplorable state of things lasted until better wages and conditions of labour were wrung from the masters by legal enactments, and by the supply of labour being adjusted to leave the men not wholly in the power of their masters. Bad as were the Unions in those days, they did some good service in this respect, and the Rev. Canon is quite right in his advocacy of improved Unions as the best means of rousing the agricultural labourer to better his position. The "mischief, ill feeling, and bad work," which Mr. Wheeler lays to the charge of Unions in times past, it may be hoped are now things of the past; and it is an obvious fallacy to assume that because Unions have been ill-managed, and, therefore, often worked badly, the fault is in the principle, and that they cannot be made to work well. Finally, Mr. Wheeler must remember that the Rev. Canon strongly recommends education, though he does not, like Mr. Wheeler, fall into the error of fancying education alone can remedy a deplorable state of things, calling for more stringent and speedy modes of cure. I see noticed the demand in the Yorkshire iron district of the puddlers and workmen for a rise in wages equal to about half the late reduction, on the plea that the improved state of the iron trade warrants this advance. It may be feared that they are rather too hasty in this movement, and should have waited while to see the improvement confirmed before making this demand. This is a mistake from which a well-managed Union would have saved them, and which will be found damaging to their prospects of getting the full advance they may be fairly entitled to when the proper time comes for claiming it.

Turning to the proposed subject of this letter, the duty of Trades Unions to promote the good education of the children of their members, and to watch over the character of English work and manufactures to maintain the high standard which keeps ahead of foreign competition, we shall find on a little examination both these are most essential points in securing the highest wages to this country. If our workpeople can only be placed at no disadvantage in these respects they need never fear for their supremacy, however keen may be the competition from abroad. The same qualities enabling our country to hold her own in contests of war and peace with other nations will secure us from defeat in this rivalry. Putting aside vain boasting or gasconade, it is the plain truth that for a union of spirit, energy, and determination (what sporting men emphatically call "pluck and bottom") we have no equals. If our Trades Unions, both of masters and men, are only clear sighted enough to read the signs of the times, and look into the future, as far as their own interests are concerned, they will soon be fully convinced that upon guarding jealously this superiority the only security for permanent high profits and high wages depends. In all trades and callings the most skilled hands suffer least from bad times, are the last to lose work, or be forced to take reduced wages. On the other hand, those lower in the scale are the first to feel the weight of every depression in their business, have their wages reduced, or are turned adrift when the pinch comes. Something akin to this holds true with their masters. Those having a speciality of skill are mostly the last to lose business and profits; and no wisdom of Trades Unions can in the long run alter this state of things, for it depends on causes beyond their control, affecting prices generally, and bearing upon the whole fund whence profits of masters and wages of men are derived. Thus, any loss or reduction of this fund is felt by both; and, where the whole is lessened both must lose, and all remaining to be done is to divide the loss between the men and their masters, settling what portion each shall bear. What holds true as to individuals is also relatively true as to national competition. In the struggle for the business of the world that country standing highest commands a kind of monopoly of the best kind—that of excellence—and is only very partially affected as to secure possession of the highest profits and the highest rates of wages in the world. Her rivals can only hope to compete successfully in lower classes of trade and manufacture, where profits and wages are also on the lowest scale. To some extent this supremacy has long been held by England. Now, when it is threatened by close rivalry on all hands, the best exertions of Trades Unions, both of masters and men, should be unremittingly devoted to maintaining it safe. The first step towards this is to improve education amongst us, that masters and men may not be behind in the race for

want of advantages in this respect possessed by other countries. Though we principally address the working men, for whose use mainly these letters are written, much, if not all, of what is written here equally concerns their masters, and is well worth their attention. Dividing education into general, or the teaching of that elementary knowledge equally indispensable to all, whatever their position; and special, or such instruction in particular arts, sciences, and subjects as is required by particular trades and manufactures, we shall find the latter too seldom the object of any regular teaching in our country. Practical efficiency of the highest kind is mostly secured by apprenticeship, or practical experience of a similar kind; but when considering special education, many circumstances will occur to the enquirer where this rule of thumb, as it may be called, is far inferior to some teaching of the principles of the processes employed, and knowledge of the past history of their exercise. Taking, however, first, general education, few parents do not feel its advantages, and earnestly desire to secure them for their children. If they have any instruction themselves, they would feel something like shame in bringing up the family in ignorance. If themselves deprived of the blessing of education, their keen feeling of the degree in which this want has often been a hindrance and disadvantage to themselves would lead them to determine, if possible, to secure their offspring from the same drawback and inconvenience. Practice soon proves to them that, however good a young man's character and abilities, without he can read and write tolerably well, and has thorough command of figures for common purposes of computation, he is wholly unfit to rise many steps on the ladder. To these may be added some knowledge of geography, especially useful in these days, when the wide world is linked together in dealing and arts of all kinds but parts of one country. It is a pity to find many, a few degrees raised in social position above the working class, suffering from want of this elementary education. Many boys, otherwise with good prospects, from this want do not rise from a low position in shops, warehouses, and offices; when Swiss and Germans, better taught at home, come here young, and mount step by step over their heads, often in no long time becoming themselves partners in flourishing establishments.

Again, for the girls. Besides reading and writing, good instruction in all womanly duties, and the care of a family, is much needed. Without this the workman's home can hardly be that scene of comfort which should make him feel it the comfortable resting-place to look longingly for through all his day's toil; and if sent from home the daughters have not half the chance of securing competence and comfort at home or abroad that those possess who are early well taught in family duties. Besides recommending the best schools, the Union should aid fathers and mothers with advice, if needed, and they should have periodical examinations, with prizes and medals for the children—male and female—of all their members. The girls might learn cooking, and waiting in the dining-rooms, going there in turn, as the daughters of most respectable families often do in the hotels in Germany for a like purpose.

I am forced to leave special education, and some remarks on what Unions, both of masters and men, ought to do to keep up the high character of English work and manufactures, for my next letter, when I hope also to notice the report just received of the proceedings of the Working Men's International Congress.

London, Sept. 8.

A MAN OF EXPERIENCE.

PEAT FUEL MANUFACTURE.

SIR,—Although it is generally admitted that it would not be practicable to employ peat, with pecuniary advantage, for the generation of steam, even were coal five times its present price, some interest attaches to the peat manufacture, from the opinion which some entertain that by the use of peat in the manufacture of iron a quality of metal would be produced equalled only by the best charcoal irons of Sweden. It is true that the experiments made have not borne out those anticipations, but sufficient has been done to prove that, the price being equal, compressed peat will form quite as good a smelting fuel as coal. Inventor after inventor has come forward with new designs for overcoming the difficulties, yet almost all have in turn disappeared from the field of labour, without attaining success.

During the past ten years Mr. T. V. Lee, of Macclesfield, has been one of the hardest workers, and he has now patented some further improvements, which it is considered will render his process very nearly perfect. In the manufacture of charcoal from peat, Mr. Lee causes the peat to be placed within a vertical cylinder, of from 18 in. to 4 feet in diameter, and from 3 to 6 feet long or deep, in which revolves a vertical shaft, carrying knives set at an angle to allow of their passing between similar knives, set equidistantly in the sides of the cylinder, passing between which the fibre is thoroughly broken. The bottom of the cylinder is of an inclined spiral plane, of about 10° pitch: at the lowest point is the port hole, through which the peat, "in a state of semi-pulp," exudes, and is received into a second cylinder, on a pair of fluted or grooved rollers placed horizontally, which are set about 4 in. apart: passing through these, the pulp falls on a similar pair of fluted or grooved rollers, set much closer. Each roller is furnished with a scraper or clearing knife. These portions of the machinery are actuated by suitable bevelled gear.

The pulp, having thus been rendered thoroughly homogeneous, falls into the die, and acquires the pressure necessary to give it density for either charcoal or fuel, through the agency of a pair of side levers, actuated by a star-wheel geared to and acting in unison with the lowest pair of rollers. The dies (of which there may be four or sixteen, according to the capacity of the machine) are set in a circular rotatory table, governed by a ratchet-wheel and pinion, acting in unison with the star-wheel. The block, thus completed, traverses the segment of a circle, and is forced out of the die at the same instant the succeeding one is receiving pressure. From thirty to sixty blocks per minute are thus produced, and during the process the peat is deprived of three-fourths of the water it contained, and is of sufficient density for stacking one on another for charring or drying. Each block is perforated with from one to five holes, while in the box or die, to facilitate drying. The blocks, thus prepared, are carried by an endless chain, or other suitable contrivance, to the kilns, which are constructed of cast-iron plates, with corresponding pipes cast thereon. Through these pipes surcharged steam is conducted, and suffered to escape through 1-16th in. perforations, about 1 ft. apart.

When he makes the kilns horizontal, they should be about 8 ft. long by 5 ft. broad and 3 ft. deep, with grooves in the bed plates, instead of raised rails, as heretofore in use for similar or analogous purposes. But when the kilns are vertical, he would make them cylindrical, and from 5 to 20 ft. high, and from 3 to 6 ft. in diameter, the vertical kilns being equally well adapted for making coke from coal dust, and are charged from the top and discharged at the bottom, while in either case, in making peat charcoal or in coking coal, the products of distillation can be collected. When the blocks of peat, so prepared, are intended for steam fuel, either for ocean-going steamers or for stationary boilers, they are immersed in one or other of the oils—"coal oil, shale oil, petroleum, or other suitable oleaginous substances"—and subjected again to the influence of surcharged steam within the kilns for about fifteen minutes, the temperature he prefers being from 400° to 500° Fahr.: the door of the kiln should then be opened, and a blast from the ordinary blast-fan be driven through, for restoring the cohesion and density which had been previously disturbed by the heat and pressure mainly employed for the purpose of fixing the hydrocarbons in every particle.

Another invention, recently patented, which bears upon the same subject, is that of Mr. Danchell, C.E., of Horwich, Lancashire. It consists of improvements in the general arrangements for macerating and preparing peat, and in the sheds for drying it. The shed consists of a series of inclined floors, placed one above the other, down which the cylindrical or spherical blocks of peat or other substance roll by their own gravity, thereby being dried by the currents of air passing through the shed. The macerator consists of two rollers, with diagonal grooves and projections, and with diagonal ribs on the casing within which they work. The macerator forces the peat out through a spout, and deposits it in troughs, supported on rollers. These troughs are carried forward by the peat, and the peat in travelling forward is cut into blocks by wires distended between cross arms placed above the trough. When the drying shed is used, the blocks cut by the wires are lifted by an archimedean screw to the top of the shed, and in rolling over on the screw the cylindrical blocks are converted into spherical, or nearly spherical, blocks. The portable

macerators are mounted on rails laid on the bog, or drying ground, in the positions required for dividing it into plots of suitable size, and the troughs, with the blocks of peat in them, are laid side by side on the ground, and left there to dry by exposure to the atmosphere. The macerator is stationary, and delivers the peat, or other substance to a moulding machine, consisting of two sets of moulds and plungers, the latter worked by eccentrics, or otherwise. The blocks of peat are delivered on to the upper endless band of a series of endless bands, which traverse to and fro in a drying stove. These bands are made of strips of metal, fixed at their ends to the links of two endless chains; part of the links are cast of malleable iron, and part of hoop iron. The blocks of peat, or other substance, in dropping from one endless band to the other, slide down incline planes, and turn partly over, so as to present all sides in succession to the action of the currents of air, which are produced by a forcing or exhausting fan, or by a chimney, and which may be artificially heated or not. By means of the improved machinery and apparatus above described the peat or other substances under operation are more thoroughly prepared, shaped, and dried, in less time and with less manual labour, than by the machinery heretofore employed for those purposes.—*Sept. 8.*

F. R. D.

LIQUID FUEL.

SIR,—In reply to the communication of Messrs. Francis Wise and Co., in last week's Journal, we fear that the only incorrect part of the article to which I allude, descriptive of Aydon's oil-boiler, was that which stated there was a full combustion. Creosote, the oil used, is known to be a stronger fuel than either shale oil or natural petroleum; it would, by itself, for every 1 lb., without any steam blast, effect an evaporation of from 12 to 14 lbs. of water, with dense smoke. An evaporation of 10 lbs. only must be considered a wasteful expenditure of the oil, even if there were no smoke. If the steam blast and oil spurted through injectors not as a flame from a blowing pipe, and send the heat up the chimney, so as to melt lead, not acting fully on the surfaces of the boiler, it might possibly account for the low amount of evaporation. Mr. Crow's apparatus, said to be a copy of Messrs. Aydon's, when tried at Sheerness, made the chimney pipe red-hot. Why the steam-blast should act by one process (Richardson's), and give an evaporation of 19, and by another only give 10, is a puzzle. The great heat produced by the Richardson process is evinced by the state of the superheater (now outside the boiler) which in his last experiment he inserted into his fire-place; it is a mass of metal, 1 ft. 6 in. × 1 ft. 3 in. × 4 in. It is reduced in some parts to only 1 in. in thickness, and it is completely destroyed after only 10 hours use. Its fellow superheater, placed in the fire-place, which from some imperfection in the mechanism was not used, is by its side; the two form a study. That the baffle of Messrs. Aydon, a thin iron plate, place in the centre of the fire-place, should remain after 25 days (one working month and one day) exposure to the fire without hardly being discoloured, must be considered as a proof that the flame by which it was surrounded could not have been very powerful. Messrs. Wise states that the evaporation of Mr. Olrick's boiler with coal was 17½ lbs. of water for each lb. of coal. Now, if the Admiralty could obtain a boiler that would produce such a result with coal they would not trouble themselves with oil; neither would the engineers notice any formula that reduced that 17½ to 8½, an evaporation of (say) 10 lbs. of water for 1 lb. of fuel is an evaporation of 10 lbs. of water for 1 lb. of fuel, and it is nothing more. Messrs. Wise should keep that story of Prof. Rankine's formula to tell to the marines. The high figure is a slip of the pen, it should be 7½; then, with 10 for the oil, and that reduced by a percentage of steam taken from the boiler, it is not known what, and considering that a less figure than 10 was the average it makes good the observation of parties who saw the boiler in action, that the amount of evaporation obtained from the oil was about the same as that given by the coal—a very poor result.

The action of highly heated compressed air, mixed with petroleum vapour, and injected into the fire-place, was tried by Mr. Swann, a chemist, of Edinburgh, in 1865, with very good results. He produced, he said, a large amount of evaporation without smoke. As to the chief constructor's name being mentioned from whose munificence the experiments were being tried, it was so understood in the room, at the lecture given by Capt. Selwyn, in February last; but, on looking at the printed copy of the lecture, it appears to be wrong. The Captain states it was owing "to the kindness of the controller that the boiler was made and placed under his supervision." This means that the sole expense of the experiments is being borne by the Admiralty; so true it is, that although a large sum is granted by Parliament for such experiments, however important they may be to the nation, the purse, fully opened to naval officers, is all but closed to civilians. The details given in the notice of Aug. 15 were taken from an elaborate paper, accompanied by engraved representations of the Olrick boiler, that appeared in one of our first engineering papers. It was evidently written by one of the parties concerned; it gave full particulars of the construction and mode of working, but carefully withheld the amount of evaporation obtained. These matters should always be fully stated. It was to supply this deficiency that the article of Aug. 15 appeared. The wind appears to be suddenly taken out of Capt. Selwyn's sails by the result of his experiments. It is expected that the Oberon boiler will give a better.

YOUR CORRESPONDENT.

LIQUID FUEL.

SIR,—In setting up our letter on this subject, which appeared in last week's Journal, your compositor has made one or two mistakes, calculated to convey a very bad impression, and which we, therefore, now beg of you to correct by inserting our present communication. As printed, our letter states that the evaporation of water was 17½ lbs. (*seventeen and a-half pounds*) when coal was used. This is a most serious printer's error, as you will find, on reference to our letter, that the evaporation, instead of being as above stated, was only 7½ lbs. (*seven and a-half pounds*) with coal. The sentence as regards the percentage of steam used for the blast should read—"The steam used for the blast, instead of being at 8 per cent." The steam used for the blast, instead of being at 8 per cent., is given by the Government

FRANCIS WISE AND CO., Consulting Engineers, &c.

WESTPHALIA, AND THE RHINE PROVINCE.

SIR,—I was much pleased to observe your correspondent "M" directing attention to the projected Siegburg-Witten-Bochum line, for I believe that line will be of greater importance for opening out the resources of Westphalia and Rhenish Prussia than any which has been proposed. Within the last 12 or 15 years the entire district—Düsseldorf, Elberfeld, Dortmund, Hagen and the neighbourhood—has been gradually assuming an appearance of activity in connection with the mineral industries which the last generation would have considered impossible. Coal, iron, and chemical works have gradually sprung up in the district, and it only requires an efficient system of railway intercommunication to raise Westphalia and the Rhine province to the position of one of the most important mineral-producing districts of Europe. It matters not whether we look at Elberfeld, Dortmund, Witten, Bochum, or Essen, we see ironworks being started in every direction; and with increased facilities in the shape of railway communication, I have no doubt we shall see the district in which these towns are comprised become a favourite one for the employment of English capital.

Apart from the consideration that the newly-projected line will enable the iron and chemical works to obtain their fuel at a much lower rate, I believe that it will prove of such considerable pecuniary advantage to the Westphalian colliery owners that they will be able to compete with the coalowners of the North of England in the Thames markets. It must be considered that the distance from Westphalia to London is scarcely greater than from Newcastle, and than when coal has only water carriage to bear it makes but little difference the actual number of miles carried. A good example of this may be found in the fact that English coal can be profitably shipped to Berlin, because the Prussian coal fields, although much nearer the place of consumption, are unable to compete, since it is a question of land carriage against water carriage. With the new Siegburg-Witten-Bochum line the cost of land carriage will not be greater than that which has now to be borne by many North Country collieries, whilst the distance of water carriage will not be greater, and it will have the additional advantage of being absolutely safer.

I admit that much of the Westphalian coal is a little tender, but I do not think it is so much as materially to interfere with its sale in London; for it is a beautiful clean coal, and makes a very bright

and cheerful fire. The New Belmont coal is at present selling in the London market at from 16s. to 16s. 6d. per ton. I should think, therefore, that the better qualities of Westphalian coal would readily sell at 18s., and at that price I believe it would well pay to import it. Of course, there might be some little up-hill work at first, in consequence of the prejudice which always exists against anything to which we are unaccustomed; but this would soon be overcome, and Westphalian coal would then take its proper place in the market. With regard to iron, I have no doubt that we should likewise soon have Bochum, Hoerde, and Essen metal in the market in such considerably larger quantities than at present that our home manufacturers would have the advantage of an abundance of good iron and steel, at prices below those now paid to British makers. R. R. D.

Sept. 7.

MINERAL PROPERTIES—THEIR VALUE.—No. VIII.

SIR,—In my last I endeavoured to ascertain the principle on which mines should be valued; in this I will apply the principle to collieries and slate quarries. I want to buy a colliery, and am in treaty for one that has an output of 200 tons per day, in full working order. The machinery, &c., has been valued, and found to be worth 2000*l.* That is the first item to be put down in the account; then we have to ascertain the value of the coal already laid out. The deep shaft is sunk for 100 fms., and the coal dips 1 in 6. This would give a wall of 600 fms., or 1200 yards. It extends for 600 fms., or 1200 yards; it is also 3 ft. thick. Here we have a deposit of coal 1200 yards long, 1200 yards broad, and one yard thick, or 1,440,000 cubic yards of coal in the whole space. About one-fourth of this (at first, at least) will have to be left for pillars. This will reduce it down to 1,080,000 cubic yards, and there will afterwards be about one-eighth for waste. This will give us 945,000 cubic yards of coal. A cubic yard of coal weighs 1 ton*; therefore, here we have 945,000 tons of coal. It has been ascertained by actual workings that the coal can be hewn, brought to shaft, drawn up, roads kept up, wear and tear of machinery kept up; in fact, everything that is needful to convert the coal into a marketable commodity, dues and all included, can be done for 4s. per ton, and it can be sold at the bank for 6s. per ton; so there is 2s. per ton actual profit on all coal raised; that is, 2s. per ton on 945,000 tons of coal, or 94,500*l.* profit on the whole. The output of coal is 200 tons per day; and, allowing 280 working days to the year, their output in 12 months will be 56,000 tons. Consequently the whole will be taken out in 17 years, and there will be 94,500*l.* profit on the whole produce. Now, the question is, what sum is sufficient to purchase the colliery, so as to get the principal and interest back in 17 years, at 3 per cent.? It would thus be equal to buying land, because if land were bought it would retain its value for 17 years, but the colliery is exhausted. Therefore, if the principal and interest, according to the rate paid in land, cannot be got back in 17 years it would be better to buy land. According to this, 62,582*l.* 17s. 5d. would be the actual or present value of the colliery. But it will have a prospective value also, because collieries are now worked successfully for 300 fms. or more deep, and the one we have been supposing is but 100 fms. deep. The old proprietors will then be entitled to a percentage of this—small indeed, because the new proprietors will be at the risk and expense of sinking and erecting the required machinery; therefore, the question for the prospective value is, how many collieries have been actually worked, profitably, beyond the depth of 100 fms., and what the amount of profit they realised on seams of coal of 1 ft. thick? In valuing a colliery, then, it is necessary to obtain the following facts for the present value:—

1.—How many tons of coal is contained in the sett actually laid out and accessible by the present means, without further risk and expense of sinking?

2.—At how much per ton can the coal be raised to bank, after deducting every expense of working, dues, depreciation of machinery, &c.?

3.—At what price can the coal be sold at the pit's mouth? In taking this an average must be taken for 17 years, as coal may be high or low at the time, and thus may be the means of over estimating or undervaluing the property.

4.—What will be the entire profit, and in what number of years will the whole be worked out? Then, what sum will be sufficient to purchase the property, so as to obtain the principal and interest in that number of years, according as land may be bought to pay interest? For the prospective value, the average of collieries that have paid beyond the limits the present colliery has been opened up, and the average profit they have paid upon every cubic yard of coal, would have to be taken: and the selling party would have a fair percentage, from 3 to 5 per cent., as the case may be. This would be the utmost anyone could ask for a colliery, and anyone buying one on this principle would be tolerably safe.

Let us now turn to slate quarries, and here we confess we enter a labyrinth; not, indeed, that there is no principle by which, we apprehend, slate quarries could or should be bought, but because enormous, nay, even fabulous, sums have within the last few years been given for slate quarries, and we are at a loss to find out on what principle they have been valued: 150,000*l.* and 80,000*l.*—yea, 20,000*l.*—has been a low figure to name for a slate quarry. These sums have often reminded me of what Shakespeare makes one of his kings say, "A horse, a horse, my kingdom for a horse." The king was placed in such circumstances that he felt a horse would be more valuable to him than his kingdom. So it is with slate quarries. Representations are made to the buying party that make them believe the property is dirt cheap, and a bargain is struck eagerly, after which the buyer finds out, in a great many cases, that he has paid too dear for his whistle by far. A few men open out a small hole on the back of a slate vein, and so impressed are they with its value that they determine to ask a good few round thousands for it, although they may not have made a ton of slate from it, and although the excavation made would be hardly large enough to make them a grave. On the other hand, the public have been so enamoured with slate quarries, thinking that because some slate quarries pay exceedingly well every slate quarry in general must be a fair speculation, and the one they have taken up particularly so, that any price the seller is disposed to ask is given for the property. This, as many have found out to their cost, is not the proper way to buy slate quarry, and were persons to adopt this plan in selling land or houses they would have to keep them for a long time. In the midst of all this, then, cannot a principle be adopted by which even slate quarries can be bought tolerably safe? I apprehend there is, and if the present and prospective value be kept carefully distinct, and neither of them too high, slate quarries can be made as safe an investment as any other property. Here is a slate quarry for sale, and I want to buy it. How am I to know its value? I cannot, except by the cost of producing the slates, and the price I can sell them at. If I can produce slate or slab at 1*l.* 10*s.* per ton, and sell them at 2*l.* per ton, then I get 10*s.* per ton profit; consequently, the value of the quarry will depend on the number of tons of slate that can be got out of the quarry. Let us suppose a slate quarry in full working order, and going to change hands. The produce is 1000 tons of slate per month, and the proportion of slate rock to be removed to the marketable slate has been found to be 1 in 10, from the top of the quarry to the bottom of the present workings. The quarry has been opened out to the extent of 300 yards on the length of the vein, and there are six galleries of 40 feet deep, or 80 yards in the whole. The proprietors have removed one-third of the rock, and have found out that by obtaining 1 in 10, at the present rate of wages, and the present rate of selling slates, they can produce the slates for 1*l.* 5*s.* per ton, and can sell them for 2*l.* per ton. The question is, what can I afford to give for the quarry, so as to make it as safe as buying land? This is the problem to be solved, and it certainly would have been better for many had they given this question more attention. The quarry is 300 yards long and 80 yards deep, and the vein (say) 60 yards wide; thus, we have 1,440,000 cubic yards of slate rock. Each cubic yard of slate rock weighs about 1 ton 15 cwt.; therefore, we have here 2,520,000 tons of slate rock, of which one-third, or 840,000 tons have been removed, leaving 1,680,000 tons of slate rock. The produce of slate is 1000 tons, for which 10,000 tons of slate rock will have to be removed, or 120,000 tons in a year. Therefore, the whole will be removed in 14 years, and the total produce of slate will be 168,000 tons, at 15*s.* per ton profit, making altogether 126,000*l.* profit. Here the question again is, what sum will be sufficient to purchase the quarry,

* Coal, according to its specific gravity, weighs about 26 cwt. to the cubic yard; but for all practical purposes it is reckoned at 1 ton to the cubic yard.

so as to be equal to buying land at (say) 3 per cent.? This sum would be 81,690*l.* 2*s.* 9*d.* No one could make the quarry out to be worth any more, and if any more were given it would be too much. This would be the present or marketable value; the prospective value would, or could, only be determined by the average number of slate quarries that were known to be worked profitable beyond the limits of the one in question, and the length the vein was known to run, together with any destructive agency that was known, or suspected, to exist. All these things must be taken into account in determining the prospective value of a slate quarry. In a word, the unworked, and, consequently, the unknown, part should be paid for according as it turned out—a fair portion of the actual profits. It should never be paid for at the same rate as the part that is actually known, because the buyer will have to run the risk and prove it, and it might turn out better or worse than the part that has been worked. If it turns out better, the seller gets the benefit in the percentage; if it turns out unprofitable, he gets nothing—why should he for a worthless property? In buying a slate quarry, the principle seems to be that the price must be regulated by the following facts:—

1.—What average proportion does the slate-rock produce of slate? Whether 1 in 8, 9, 10, or some other number? The average of each gallery will, probably, vary, and the average of the same gallery will vary at different times, so a general average must be taken.

2.—What is the number of cubic yards actually uncovered, and known to contain the average?

3.—How much can a ton of slate be produced for, and at what price can it be sold? Then, what will be the profit on the whole slate-rock contained in the workings?

4.—Then, in what time can it be extracted? Because time is money in slate quarrying, like everything else. And what sum would be sufficient to purchase it, so as to be equal to land at the current rate land can be bought for?

On this principle Lord Penrhyn's quarry, or the Welsh Slate Company's, could be valued. Supposing Lord Penrhyn were disposed to sell his quarry, no one would give him more for it than what they could buy land for that would produce the same income that his lordship's quarry produces, even considering it to be as safe as land. And what is the income of the quarry regulated by? It is by the make of slates. He can produce every ton of slates for so much less than he sells it for, and this constitutes the income or profit.

I will just bring forth one example out of several I could mention of slate quarries that have been bought upon a wrong principle. I bring this one forward, because I was working at the next quarry to it the time the transaction took place, and had great doubts as to whether it was bought on a right principle. I mean the Diffwys Casson Quarry, Festiniog. The quarry was bought more than six years ago by Messrs. Casson and Co. for 120,000*l.*, and a company afterwards formed for 150,000*l.* purchase money, with a capital of 200,000*l.* It was bought on a report, certifying that a certain number of slates could be produced in a given time. If there were any actual data for the report the bargain would have been all right, but as we will enquire again on what principle reports are made, we will leave the matter here. I do not know exactly the terms of the contract, but let us suppose the 150,000*l.* is to be paid in five years—i.e., 30,000*l.* a-year. This, allowing 3 per cent. interest, will amount to 163,500*l.* purchase money, and there has been spent in the quarry, probably, 30,000*l.*, making altogether 193,500*l.* Therefore, the quarry would have to pay 10,000*l.* profit, and last for 50 years, before it would be equal to buying land, or placing money in the Consols at 3 per cent. But let us look at the condition of the Diffwys Casson Quarry at the time of its sale. The old Diffwys Quarry had to be worked by Casson and Co. for a great number of years on what is now known as the old vein. They came to a point at which they did not deem it advisable to take off top-rock, and so they quarried under, depositing a deal of debris in the old workings, as a less expensive mode. Some 12 or 13 years ago Mr. Percival bought the Hafod Quarry, and as Mr. Graves had given up working the lord's quarry, Mr. Percival took that also, and resolved to test an old apprehension existing in the neighbourhood, that there was a vein lying under the old vein. Accordingly he set to work, and after driving a very few yards through a hard vein, he actually found another slate vein, and the greater bulk of it was bound to be in Mr. Casson's ground, under his old quarry. It was when this new vein was discovered that the quarry was sold. Now, there was the hard vein to be taken off to begin with, and a deal of the former company's debris to be removed. The new vein had not been proved; no one knew what average it would produce, no one knew at what cost per ton the slate could be made, and I much doubt if anyone took care, or ever had the means to know, what amount of slate-rock was contained in the new vein within the boundary of the old quarry. What, then, did the company buy? They bought a quarry, and gave actual value for a property that it was impossible to value. Therefore, the present value should have been very much less, and the prospective value made to depend on how the new vein turned out.

These, Sir, are my ideas on the value of mineral properties. I know I have trodden ground not much frequented by mining men, but I think it is high time that some reasonable views should be put forward on the subject, when we see promoters asking, and obtaining, such unreasonable sums for mineral properties. In a slate quarry, if the selling parties cannot show that they have a certain bulk of rock, from which slates or slabs can be produced at a profit, of course the place has no actual marketable value. Its value has to be proven, and its value is prospective. Then, in effect slate quarries, if it cannot be shown that the slates produced can be sold at so much higher, as to leave a profit, or the transit means, or bad management, was such as to be detrimental, they have no actual value. I should be glad to correspond with anyone, either privately or through the medium of the *Mining Journal*, on this subject further. S. JENKINS.
Dinas Mawddwy.

THE ABERGELE CATASTROPHE.

SIR,—It is high time the Board of Trade should interfere when, even in such a generally well-managed line as the London and North-Western is, a state of fearful danger is revealed, as an ordinary result of the daily working of the traffic. I am well aware it is wholly impossible to legislate against every contingency—that many rules practically defeat themselves, being either so stringent and onerous as to be universally neglected, or leading in their observance to dangers not contemplated that may be greater than those they were framed to avoid—and that regulations to be effective must be simple and practicable in no common degree.

It might seem that the enormous sums paid by the North-Western as compensation for accidents would move the breeches-pocket interest (not the weakest in these matters) to every care that could be devised to secure the safety of their passengers. Unhappily, however, it is a known weakness of human nature to grudge a certain outlay, and perchance inconvenience, even to avoid far greater loss, the exact amount of which is uncertain and contingent; therefore the absolute necessity for Government interference. If the Board of Trade has not needful power, it should be acquired by an Act next session—for, surely, care of the lives and limbs of the travelling public should be the first object of Government protection—if it is good for anything at all. The rules I propose may involve some expense to make stations properly safe, but there is nothing in them at all difficult in operation—the very reverse. Anyone who, with any knowledge of these things, has noticed the shunting and separation of goods trains on the main line must be aware how full of peril these operations are on main lines with frequent passenger trains.

RULES.

1.—At every goods station clear sidings to be kept outside of the passenger lines on both up and down sides for goods trains, on which nothing should be permitted to stand at any time, save the goods train passing. No goods train to be allowed to leave any station until the line ahead and the siding at the next station are reported clear. No goods train to be allowed on the main line of greater length than the goods sidings at every successive station will contain with the engine, to be wholly clear of the main line when run into the siding.

2.—A second siding to run behind this passage siding in every station, to receive empties, trucks and wagons left, &c., with frequent turn-tables at proper distances, to make it easy to detach wagons, &c., requiring to be left from any part of the main siding.

3.—No making up or separation of any goods train to be permitted on the main passenger line, under any circumstances. Goods trains fully made up to run along the main line at such times as the Board of Trade may certify from the time-tables to be safe, finding the main line telegraphed clear on leaving the siding at any station, but not to stand on the main line on any pretence, running at once to the next station into the goods siding.

4.—All station-masters to have full instructions to keep the goods trains, to let passenger trains pass, and when they have passed to show by clear signal that a goods train is on the line ahead until such train is reported by telegraph safe in its siding in the next station, when such signal should be lowered.

5.—Proper time, as regulated by the Board of Trade, to be given to every railway company to alter their goods stations to conform with these requisitions. Until this is done, and the Government Inspector reports that all the goods stations comply with the rules, the goods trade on any line to be under special regulations, to ensure safety as far as possible.

6.—If any company allows the regulated time to elapse without having provided goods stations as required, the Board of Trade to have power wholly to suspend their goods traffic over such portion of their lines as is not in proper order, unless a case be shown for a limited extension of the time, which should be final.

7.—Proper fines and penalties, or other means of enforcing compliance with the regulations as may be agreed upon.

A MAN OF EXPERIENCE.

RECENT GOLD DISCOVERY IN NEW ZEALAND—No. II.

SIR,—In my last letter to you I mentioned that a labourer with a pound or two in his pocket could reach the scene of the recent gold discovery. To prevent any misconception, what I meant was that he could do well if he had a pound or two when he reached the gold field, as he would not have to travel several hundred miles up the country when he landed, as in the case of the late discoveries made in South Africa, in latitude 21° south, and longitude 29° to 30° east, some 750 miles from Port Natal. The Hauraki is about 40 miles eastward of Auckland. Five or six steamers ply regularly to and fro, and convey passengers at 4*s.* per head. On his arrival he has scarcely a hundred yards to walk before he finds himself upon the gold field. The gold fields extend from Cape Colville, in continuous ranges, along the shores of the Thames, through Coromandel, the true El Dorado, to almost 20 miles inland. Nearly the whole of this magnificent territory belongs to the natives, who have leased a large portion of it to our local Government. There is no approaching it except seaways, the jealousy of the natives making it much too dangerous for visitors to attempt, or, rather, to avail themselves of, the much shorter land route. Every miner pays 20*s.* for his license, 15*s.* of which are handed over to the proprietors of the soil. Upwards of 6500 of these licences have already been granted and paid for, and it is confidently believed that the number will exceed 30,000 before the close of the ensuing summer. For the above fee of 20*s.* the digger is put into possession of a strip of land 150 ft. in length by 50 in width. This is called the "claim." But the most usual practice is for three or more diggers to associate, and so secure between them a larger extent of ground, each paying, of course, for a separate license to work. Among the earliest claims thus obtained, and belonging to three individuals, a fourth share in it was almost immediately disposed of for 2250*l.*, and 25,000*l.* more was shortly afterwards offered, and refused, for the whole lot. Limited as its area is, yet nobody doubts but that it contains precious metal, to the enormous value of 1,000,000*l.* sterling. The four lucky proprietors are labouring upon it themselves. No other claim approaches this in value, yet there are many yielding to their owners 200*l.* and 250*l.* per week. The quartz throughout the district certainly averages 12 ozs. of gold to the ton. Prospecting parties are at liberty to select for themselves within the proclaimed area any unoccupied spots. All that they, then, have to do is to pay off so many claims, according to their numbers. These companies are generally limited, too; in no case, at all events, do they exceed 20 members. After receiving his license the adventurer must be daily on the ground and at work, or provide a substitute, otherwise his claim may be "jumped"—that is, forfeited to the first comer, he being himself a licensed miner, who discovers it "idle."

JOHN E. SMITH,
Her Majesty's Civil Service.

MINING ENTERPRISE IN SWEDEN.

THE SWEDISH SULPHUR ORE COMPANY.

SIR,—As remarked in the Journal of Aug. 22, a company has been formed for working some valuable deposits of sulphur ore near Stockholm. Such being the case, I take the liberty of making a few remarks on the prospects and advantages connected with the mines. These deposits of ore have long been known to Swedish geologists and miners, and although highly reported on by eminent men, their development has been much neglected. During the past 12 months some well-directed explorations have been carried out, and with such success that several cargoes of ore have been actually shipped, yielding from 47 to 51 per cent. of sulphur. The ore is much appreciated by acid manufacturers, on account of its being free from arsenic and other deleterious matter. The surrounding stratum is a compact felspathic granite, and traversed by bands of high flesh-coloured felspar: large quantities of it is quarried and shipped to Prussia and France; in the latter are found large flakes, or plates, of mica, and occasionally we find splendid crystals of felspar in it. The general bearing of the lodes, or deposits, is from 5° to 15° south of west and north of east, with a slight underlie north.

The facilities for working and shipping the ore cannot be surpassed; on the east is the Gulf of Bothnia, only a few hundred yards distant, on the west is the Waddön Canal, also affording every chance of loading ships. Labour and timber, two most important elements where large works are to be carried on, are extremely cheap; the former may be quoted on an average of 1*s.* 5*d.* per day for 12 hours' work. First-class timber we get delivered on the mine for 2*d.* per foot or less; as an example, we buy trees from 25 to 40 feet long, and not less than 6 in. small end, for 2*s.* 3*d.* Deals and boards are proportionately cheap.

During the winter all the railways are kept open; and as an example that mining, and even dressing, can be carried on in the winter, I may state that the Vieille Montagne Mining Company, at their large zinc mines in this country, keep all their dressing machinery in full operation, which is by far the best in this country, and, I presume, will compare favourably with any dressing machinery in the world: it was designed and erected under the superintendence of German and Belgian engineers. During last winter we erected on our mines some buildings, also a horse-whim, and even selected all the ore raised without a shed or covering of any kind. So far as developed the prospects are all that can be desired, and with care and proper management the mines cannot fail to be highly remunerative to those interested.

W. HOSKIN.

Swedish Sulphur Mines, Norrtelje, Sweden, Sept. 4.

THE FUTURE OF MINING.

[SEPT. 12, 1868.]

duce on their own terms. The public should now look to their local interests a little for the future, and the present is the opportunity they have in selecting proper persons to represent their interests in the next Parliament—the words Liberal and Tory being a farce.

Sept. 8.

A SHAREHOLDER IN MINES.

REFORM IN MINING—CERTIFICATES TO MINING CAPTAINS.

SIR.—In the Journal of Aug. 29 Mr. T. E. W. Thomas made some truthful remarks on this subject, well deserving the attention of thoughtful miners and capitalist venturers. Let a Mining College be established, at which, after due examination, all entitled to certificates shall have them awarded, and merit be admitted where due. In fields in which from day to day all may learn something during a long life, observation and reflection are powers, the possession and proper use of which cannot be too highly appreciated. Who does not revere the memories of a Newton and a Faraday (not to name other illustrious men departed and living), and their laborious researches into the glories of that creative power by which worlds have been established, with all their properties and the laws under which they have been formed in some degree defined? And who can doubt the importance, in a national point of view, of the interest which would be aroused, as well as the advantage gained by anxious capitalists, if a generous impulse were given by the establishment of such a college, at which enterprising, high-spirited miners, both of mature age and young, could study, "and be entitled to receive certificates that they understand laws" by which mineral deposits in the interior of this globe or under its surface have been decreed to assume their present position amidst its various component parts, and the extraction of which in a profitable manner for the benefit of mankind is such an object?

In such a noble establishment (the advantages of which cannot be described in detail in so limited a space as this) let all miners and friends of their country unite. Now is the time. Reform and sound progress is the admitted order of the day by kings, emperors, presidents, cabinets, and people; and as a loyal and humble subject, born, educated, and living in the mineral world and amongst its treasures and wonders, I say from my heart, for the benefit of all—Forward.—Anglesea, Sept. 9.

EDMUND SPARGO.

PRINCE OF WALES MINE.

SIR.—The important improvement announced a few days since must be accepted by the shareholders as another reassuring evidence that they possess a property of no ordinary character, while, on the other hand, it has entirely dispelled the lugubrious of the croakers—that is, those who saw something that no one else could see in the 55 fm. level, which led them to the practical conclusion that no ore could be found below that point. The truthfulness of this opinion may be best judged by the fact that a lode has now been opened out in the 65 worth 20/- per fathom.

The continuance of the favourable appearance and value of the new lode in the 45 fathom level is also a feature of great promise; and should the cross-cut putting out in the 55 prove its continuance in depth, a new mine, so to speak, may be opened out from this point, while the continuance of the old mine in the 65 irrefragably proves a valuable mine in depth. This, however, is only another instance of the truth of the saying—"Confide to your captain, and if you cannot, get one in whom you can confide."

A LARGE SHAREHOLDER.

GOONBARROW TIN MINE.

SIR.—A very considerable sensation having been caused in the St. Austell district by the reported discoveries in Goonbarrow Mine, much interest has been felt in the minds of the public whether the real merits of the discoveries were of such importance as rumour declared. I have paid scrupulous attention to the subject, and taken the trouble to investigate the matter upon perfectly reliable data. There is a 48-head stamping on the property, driven by a 30-in. double-acting rotary engine, stamping tin-stuff, broken from an immense lode on the slope of a very high hill, from whence an unlimited quantity of tin-stuff may be obtained above the adit level, high and dry, without the aid of any engines to pump the water. Some idea of the extraordinarily large quantity of tin-stuff obtainable above adit may be formed from the following facts:—The sett is some 500 or 600 fathoms in length; the adit can be taken up about the eastern boundary of the sett, and has a rapid rise of some 50 fms., or about home to the western boundary; the width of the lode, or rather network of lodes, which evidently form junctions with each other in the slope of the hill, cannot be less than 80 yards; one portion of this large mass, where cut through, does not appear to have the least horse of country at surface in it, for a distance of 40 yards through at one point. Operations have been commenced at one point in this network of lodes, by stopping east and west in line with their course from surface, and, so far as the stoping has gone, one of the most productive lodes that was probably ever seen in Cornwall is being laid open, which fully bears out the favourable representations made by the public respecting it. An excellent tramway is laid down, to take the tin-stuff to the stamps, by which the transit of the trams is accomplished at a trifling cost. The dressing-floor is laid out in good working order, and in a miner-like manner. The most important point in this, as every other undertaking, however, is its paying capabilities, and in this respect, as may be inferred from the working of such a productive lode, the adventure is an eminent success. The stamps have been in operation two or three months, and given an excellent profit already. Particular attention has been paid to this part of the subject, with a view to ascertain, as correctly as possible, the average yield of lode, and the profits the 48-head stamp will give, extending operations over a period of twelve months. According to the number of heads that have been working, the 48-heads would give an annual profit of £5000, taking the average yield of tin in the stope to be equal to that in the stuff deepening from surface, the calculation is, no doubt, sound. In calculating the value of mining property, particular regard has to be paid as to how many years' purchase the mine is worth. Some mines are better worth fourteen years' purchase than others are worth five. The present (Goonbarrow), on account of the unlimited quantity of tin-stuff it is capable of yielding, is quite as likely to merit a twelve years' purchase as any mining undertaking anywhere, and the importance of the discovery in this mine will readily appear from the fact that £5000, (the profit the present 48-head stamps are capable of giving annually) represents, at ten years' purchase, a capital of £50,000. But there is another important factor belonging to this property—there are no reasons whatever to conclude that this immense lode does not contain tin in paying quantities throughout, as well as where it is now being opened on, with scope and supply for a far greater number of stamp-heads than have ever yet been employed in Cornwall.

The quality of the Goonbarrow tin is of the top kind of mine tin, but is free from the impurities usually associated with this description, requiring no burning or anything of the sort in dressing, and fetches a price nearly equal to that of stream tin. The proprietors, being very plucky adventurers, have earned a good reward, which they justly merit. The neighbourhood of St. Austell has had its share of the general mining depression, and the opening of a mine that is likely to confer such benefits on the neighbourhood is of great importance to it.

MINER.

FRONTINO AND BOLIVIA (SOUTH AMERICAN) GOLD MINING COMPANY.

SIR.—I find by the Journal of last week that the facilities for reducing the at the different mines belonging to this company are being gradually increased, and that Mr. C. S. de Grieff, to whom has been entrusted the carrying out of the practical details, again observes that the bases have been successfully laid of a mineral property, which will every day become more and more valuable, and which admits of being advantageously developed to an almost unlimited extent. This information must be regarded by all interested in the enterprise as satisfactory, and as indicating a career of prosperity. The remittance is being reduced, but I cannot help thinking that it would be at least courteous on the part of the directors if they were to follow the example of other similar companies, and publish the net result of each month's operations. This would appear to be the more necessary, since it is believed that what has recently appeared that a considerable sum must be accumulating to the credit of profit and loss.

Although no one who knows anything at all about the executive could for one moment suppose the object of reticence on this important point is that outside shareholders should be induced to part with their interest at the current heavy discount; yet it is a fact, proved by daily operations, that the passiveness of the directors is bringing about this undesirable result; therefore, the effect is the same, notwithstanding that the cause producing that effect may be, as I believe it is, unintentional on the part of those who have the means in their power to avert it. It is to be hoped that, in justice to the shareholders, the directors will take this suggestion into their consideration.

A SHAREHOLDER.

THE YUDANAMUTANA COPPER MINING COMPANY OF SOUTH AUSTRALIA.—Since the announcement by telegram that an important discovery had been made at the Blinman Mine, confirmatory intelligence has been awaited with unusual interest, while the market price of the shares has naturally fluctuated from day to day. Upon the receipt of the last advices (enclosing a remittance of £1000) it was learnt, from the testimony of the superintendent, writing under date July 18, that since his last visit, in February, the mine has improved in every respect; indeed, he had never seen such a show of ore throughout the workings as now presents itself. Referring to the south end of the 10 fm. level, the superintendent states that the No. 1 winze is down 30 fms., and 5 fms., from where they expected to hole from the 25 fm. level two small branches of ore, about 3 inches wide, were met with, which Capt. Terrell confidently followed for about 3 fms., when they began to open out; having sunk upon it 2 fms., a lode was opened upon of 4 to 5 ft. wide, of not less than 35 per cent., the floor being as solid as an anvil. As to the "new and important discovery," it is stated that the winze in the bottom of the 10, which has been considerably abandoned, and was filled up with rubbish, old timber, and general debris of the mine, has been cleared out, and in the bottom a splendid lode of ore found, 7 to 8 ft. wide; this lode is considered one of the best in the mine. It must have been discovered before the winze was abandoned, and why it was ever closed up, and the tons of stuff thrown in to cover it, will remain a mystery. The greater part of the attics brought to surface is run through the furnaces, and makes a good mixture for the richer ores. It is added that the mine is improving the deeper it is explored, and it may safely now take its rank as a permanent mine. The return for the month is as fol-

lows:—Ore raised, 264 tons; ore smelted, 264 tons; ore on hand, 150 tons; copper returned, 57 tons; copper dispatched to Port Augusta, 22 tons 19 cwt. 3 qrs. copper on hand, 1 ton 0 cwt. 1 qr. Among the several anonymous communications which have appeared in the columns of our contemporaries one signed "A Colonist," wherein the following occurs:—"The general truth of Mr. O'Farrell's statements is becoming more clearly established as events roll on." The best reply to this assertion is that Mr. O'Farrell's "statements" were to the effect that "if ever any copper were returned it would cost more to get than it would realise, and that no fuel could be obtained for smelting purposes." Results show that the Blinman Mine is now, and has been for some time past, returning about 40 tons of copper per month, with three furnaces; that a fourth has been built, and that arrangements have been made for the delivery of fire-clay at 20s. per ton for the construction of others; and, as to fuel, the shareholders are informed by the latest mail that a good supply of fire-wood is coming in, and no prospect for the present of any diminution; that Capt. Terrell and the superintendent had looked around for wood, and found a tract of country well wooded with suitable timber for smelting, about 2 miles wide by about 8 to 10 miles long, and distant from the mine about 15 miles. There is now sufficient wood known to last some years.

Meetings of Public Companies.

NORTH FOXDALE MINING COMPANY.

The yearly meeting of shareholders was held at the company's office, No. 15, Waring-street, Belfast, on Aug. 27,

Mr. JOHN SHELLY (Collector of Customs, Belfast) in the chair. Mr. SILAS EVANS (secretary) read the notice convening the meeting, when the reports of the directors and manager were adopted.

The report of the directors stated that they have personally examined the machinery, and found it most substantial and effective. The mines are now fully equipped with the necessary plant for working them to a considerable extent, the new shaft being sunk to a depth of 50 fms., or to the point intended at the formation of the company. The directors, therefore, trust, when the levels are driven out under the upper workings that display such favourable indications, discoveries of ore will be made, and the anticipations of the engineer realised. Since the last yearly meeting the directors have offered to the shareholders the second issue of 4000 shares liable to calls, of which 3636 were applied for, and duly allotted. They have also issued to the holders of the free shares 1776 shares, being a proportionate number to which they are entitled by this issue. One of the directors, Mr. Henry H. Bell, having removed his residence to New York, has resigned his seat at the board. The directors not having elected a director to fill the vacancy thus created, the shareholders will have to elect one in his stead, and also in the place of Mr. J. W. Valentine, who retires in rotation, but offers himself for re-election. At the conclusion of the ordinary business the meeting will be made special for the purpose of considering the advisability, or otherwise, of registering the company under the Companies Act, 1865, of shareholders resident in the Isle of Man, who wish to have the protection of the Limited Liability Act equally with their fellow-shareholders resident out of the island, the company being only now registered in Ireland.

The report of the manager (Mr. Edward Bawden) referred to the works that had been carried out during the year, and stated that the surface portion had been rather expensive, but could not possibly be avoided, as the mine could not be effectually proved without it; in future, the monthly expenses will be greatly decreased, as the machinery and all surface work are nearly complete; therefore, the capital will now be chiefly confined to the exploration of the vein at the 50, which he trusts will prove satisfactory. He considers from this time, or as soon as they are ready to extend the levels on the vein, the real proving of the mine commences.

The CHAIRMAN, after a few prefatory remarks, called upon the Secretary to give some information regarding the mine and statement of accounts, who said there had been expended since the formation of the company, two years ago, about £4000. That very excellent machinery had been erected of sufficient power to work the mines to a considerable depth, and that the supply of water was abundant that no steam machinery would ever be required. After a very ample description of the workings of the mine, he said the engine-shaft was now 50 fms. deep, or to the point originally intended to be sunk at the formation of the company, and that the levels would be immediately commenced from the shaft to prove the ground driven through in the upper workings, where lead more or less had been found for nearly 70 fms. in length, and where the prospectors generally were of the most encouraging character. The great outlay had now been made, and from this time forward the shareholders would reap the benefits of such, as no doubt the indications presented upward and near the surface would be found of a substantial character in the bottom of the mine. He trusted the coming year's operations would result in important discoveries; the outlay would be small when compared with the past, and the mine would have a good trial in a short time.

Mr. KENNODDE (a director from the Isle of Man) said he was at the mine two days ago. That in cutting the ledge at the bottom of the shaft the vein was found to be very large, and of a most promising description, and that no doubt rested in the minds of the workmen and others about the mines that good discoveries would be made in driving out the levels. He individually entertained a very high opinion of the property, and considered the shareholders would be amply rewarded for their outlay.

After an interesting conversation amongst those present regarding the workings, the resolutions adopting the report, statement of accounts, &c., were carried unanimously, as also one for registering the company under the Companies Act in the Isle of Man.

The meeting was brought to a close by a cordial vote of thanks being voted to Mr. Shelly for his able conduct in the chair.

DON PEDRO NORTH DEL REY GOLD MINING COMPANY.

An extraordinary general meeting of shareholders was held at the London Tavern, Bishopsgate, on Sept. 4,

Mr. HENRY HAYMEN in the chair.

Mr. JOHN E. DAWSON (the secretary) read the notice convening the meeting.

The CHAIRMAN said he would not detain the shareholders long upon the present occasion, as within the last few days news had been received and circulated among the shareholders, which conveyed intelligence that, under ordinary circumstances, could not fail to be fully as satisfactory as could be anticipated. As far as he was concerned, he considered those advices contained the most satisfactory item of information they had received for many months; he did not look at the actual produce of the month so much as the general feature of the mine, and when he found—as he did find by the last report circulated among the shareholders—that it was stated the general work had never yielded better than at the present time, it was not only a very great feature in a mine, but it also corroborated his opinion that the further the mine was explored the more satisfactory would be the result, although the produce varied from time to time, and although they had had various difficulties against which to contend. Not only was it important that the general work improved as the levels were extended upon the ordinary veins, but it was important, he thought, and it could not fail to be satisfactory, to find the company in its present position, especially when it was remembered they had been working from hand to mouth, so to speak—not from any fault on the part of the management, but owing to the war that had been going on with Paraguay for some years. By the last advices, however, it must be evident to everyone who knew anything about Brazil that the war would very shortly close—if, indeed, it had not already terminated. That would enable their manager to put on a larger force of men to thoroughly develop the other mines upon the company's property. Looking at the past, and with every wish not to magnify in the slightest degree the prospects of the company, he fully believed that, taking the average of any one of the past 12 months, the returns from Maquiné during each month of the present financial year would be quite as good, if not considerably better.

(Hear, hear.) On behalf of his colleagues and himself, who were unanimous upon the point that the principle they had always advised to be adopted with regard to the declaration of an interim dividend should be continued, he was about to ask the shareholders to-day to adopt the suggestion of the board by declaring an interim dividend of 3s. per share, allowing the directors to carry forward a balance very nearly equivalent to the same amount. Should no misfortune occur, and he did not anticipate any, but in all mines they were liable to little runs of HI as well as good luck—and they must remember they were yet young, although their "reserves" had largely accumulated since the last annual report of the manager, when they were computed to be equal to two years' working—although, as he had already said, he did not anticipate any mishap, still he thought that by adopting the present course with regard to the dividends, until their reserve fund had grown to a much larger amount, they would be acting as prudent investors. He had no doubt that in three months hence the directors would be able to recommend a dividend—he was now speaking simply upon his own authority—or a larger amount than that recommended upon the present occasion. (Hear, hear.) He then moved that a dividend be declared of 3s. per share, being for the three months ending June 30, and at the rate of upwards of 50 per cent. per annum, the sum of £10,105, being carried forward for the quarter ending Sept. 30.—Mr. WILDE seconded the proposition.

The CHAIRMAN added that he hoped to be able (although the report had indicated to him an enormous extent) to have the dividend warrants ready in course of to-morrow. (Hear, hear.)

Dr. BEATTIE asked where the reserve fund was invested?—The CHAIRMAN said it was invested in the Reduced Three Per Cent. (Hear, hear.)

Mr. COOK supposed that Capt. Treloar was not present, and asked if there were any reason to expect that the constituents of the company would have an opportunity of meeting him within a short period? He knew there were some, and he had no doubt there were a great many, members who would like to be present to have the satisfaction of seeing Capt. Treloar.

Dr. BEATTIE said the Chairman had alluded to some virgin ground possessed by this company. Could the Chairman give any further details? He (Dr. Beattie) was very glad to hear that the company possessed some virgin ground, and that it was intended to operate upon it without delay as soon as men could be got.

Possibly with that view the directors were anxious to retain it in hand as much as 10,000 ft., thinking it desirable the company should have a working capital.

The CHAIRMAN thought the hon. proprietor had misunderstood his (the Chairman's) remarks, for he had not the slightest apprehension that the ground now being worked would not continue to afford very considerable and ample quantities of gold. He referred to the properties which had been slightly adverted to from time to time in the monthly reports, and which he (the Chairman) believed would turn out equal if not superior to Maquiné. Tambor was one, and Matador another, besides which they had several more from which they had been compelled to remove the men. He did not anticipate they would require 10,000 ft. to be kept in hand for such a purpose; he thought if the war were over, which he believed and trusted by this time it was, that they would be enabled to open out these new properties with a very small increased monthly expenditure, because the large proportion of superintending charges would not be augmented upon the whole works, and to a great extent native labour would be employed; while he believed they would be enabled to open out these works without materially

increasing the outlay, the result would be a very large increase in the monthly profit. As he had pointed out upon previous occasions, that monthly profit was arrived at by charging the maximum cost. It was possible to charge from month to month against the mine, and they generally found in making up the accounts at the end of the year that they had over-stated the cost and under-estimated the profit, and that there was a larger sum to the credit of the shareholders on that account. As to Capt. Treloar, he had only recently returned to England, after an absence of something like 30 years, for he was only in this country a very few months previous to his connection with this company, and, therefore, he was Capt. Treloar present, he (the Chairman) did not know that he would be able to make any statement adding any information to that he had written from time to time. He (the Chairman) did not know that any statement could be made to the shareholders more satisfactory than the fact that they met here to-day at the expiration of a year after the company was vilely attacked, and that the directors were able to show the position of the company to be as good now, if not better than then, notwithstanding they had been working in the face of very great difficulties. But if the shareholders wished a special meeting to be convened for the purpose of meeting Capt. Treloar, the directors, as their trustees, would gladly convene it.

Mr. CROPP considered the directors exercised a wise discretion in keeping a large sum of money in hand, for by so doing they gave a stability to the concern which it would not possess if they paid a large dividend at one time, and a small one at another.—The question was then put, and carried unanimously.

The CHAIRMAN trusted that when they met again at the end of next quarter, they would find his anticipations fully corroborated—that is, that he would be able to advise them to declare a larger amount of dividend. (Hear, hear.)

Mr. SLATER was sure they would not separate without passing a complimentary vote of thanks to the Chairman, who had always told the truth, and the whole truth; and he hoped the Chairman would be long spared to take charge of and preside over the meetings of this company, and that he would rapidly have one success after another. (Hear, hear.) Mr. CHAMBERS seconded the proposition, which was "yea," and carried unanimously.

The CHAIRMAN said he was very much obliged to the proprietors for their kindness, and all he could say was that of the many occasions he had risen to return thanks he had never done so with greater feelings of gratitude than upon the present occasion, and for the simple reason that they had trusted him jointly with Capt. Treloar when the company was in great difficulties. There was no disguising the fact that through the abilities of Capt. Treloar, supported by the board, they had achieved one of the greatest successes of the present day. (Hear, hear.) He did not mean to say that everything he put his name to would be a success, for no merchant in the City of London ever expected or realised uniform success in all his enterprises, but this he could tell them, that so long as they honoured him to preside over their companies, they would get the truth, whether the news be good or bad. So that if any one of the ships should sink—which he did not think would be the case—the directors would go down with the shareholders. (Hear, hear.)

A vote of thanks was passed to Mr. Dawson, the secretary, for the able and zealous manner in which he continued to discharge the duties of his office. The meeting then separated.

THE CWM DWYFOR COPPER MINE, NORTH WALES.

This mine was referred to in the *Mining Journal* of Aug. 15, in an article on the New Prince of Wales Slate Company, as producing yellow sulphuret of copper of the finest quality. By a report from Mr. Thomas Collier, an eminent authority on Welsh copper mining, which is subjoined, the remarks then made on this valuable property will be seen to have received full confirmation. Now that Cornish mines, from their depth and costliness of working by expensive machinery,

withstanding the unfavourable consequences of this fall in prices, the state of the enterprise generally appears to have somewhat improved. The production amounted in 1867 to 39,037 tons of raw calaminae, and 465 tons of blonde. The Aviles zinc works yielded 2064 tons of rough zinc, or nearly 25 per cent. more than in 1866. The Arnao Colliery, which supplies the Aviles zincworks, furnished 311,415 hectolitres of coal in 1867, or about 10 per cent. more than in 1866.

The advices received from the Hamburg and Havre copper markets have indicated a certain feebleness, which is attributed to an expectation that the reports from the Southern Seas will announce rather important deliveries. On the secondary markets prices are almost generally nominal. Tin has been a good deal neglected at Amsterdam and Rotterdam, where some transactions are mentioned. Banca at \$4½ to 54½ fl., and in Billiton at 53½ to 55½ fl. The Dutch Society of Commerce has announced its next public sale of tin for the 30th inst.; the quantities which will be offered at the biddings comprise 90,300 blocks of Banca and 1400 blocks of Billiton. The price at which the society has effected its sales for the last ten years have been as follows—July 7, 1859, 82½ fl.; June 28, 1860, 75½ fl.; June 26, 1861, 69 fl.; June 25, 1862, 67½ fl.; June 24, 1863, 76 fl.; June 29, 1864, 61¾ fl.; June 29, 1865, 56 fl.; March 22, 1866, 49½ fl.; Sept. 28, 1866, 46 fl.; March 28, 1867, 54 fl.; Sept. 26, 1867, 54½ fl.; March 28, 1868, 55 fl. The total stock of the society is now estimated at 170,557 ingots of Banca, as compared with 199,722 ingots at the corresponding date of 1867. Lead remains quiet, but prices are, if anything, rather feebly supported. The state of the zinc markets has not improved; the demand is not very active, and prices are irregular.

FOREIGN MINES.

IMPERIAL SILVER QUARRIES.—Lewis Chalmers, Sept. 10: Thirteen feet of tunnel were completed during last week.

LAGUNA.—J. R. Rule, July 7: The total distance which the shaft is now sunk below the 75 varas level is 827 varas. The appearance of the vein in the shaft continues much the same, with good spots of ore here and there, and some lots go to the pile accumulating for production. The Veladores of the mine having asked leave to try an old pitch, on the condition of paying their own costs, and receiving one-half the ores they break, I assented, and they have, by working on the afternoon and night of Saturdays only, broken a considerable heap of stuff, which will soon be dressed, and I expect we shall get several cargoes of ore of a pretty good ley, which will leave a profit after deducting the expense of dressing and reduction; and so, it is desirable to have the ground proved, as it may lead to something better if the vein widens.

An August 7.—Total distance now sunk below the 75 varas level, 772 varas. The appearance of the vein in sinking seems to improve, and there are better spots of ore than when I last wrote. The old pitch where, as mentioned in my last, the Veladores have begun to work during feast days and Saturdays, has also improved, the vein of ore on which they have been rising wider.

FORTUNA.—Aug. 29: Canana Incosa Mine: The 110 fathom level, east of O'Shea's shaft, produces 1½ ton of ore per fathom; the ground is easy for driving, and the lode is large and regular. The ground still continues hard in the 100, west of O'Shea's shaft. The 90, west of Judd's shaft, yields 1½ ton of ore per fathom; this end still continues to open a valuable piece of ore ground. The 80, west of Judd's, is worth 3½ ton per fathom. We are making a little better progress in the 70, east of Carro's shaft, than we have been. The 80 fathom level cross-cut south has not yet intersected the shoot of ore which we have in the winze in advance, but from the quantity of water issuing from the end, we think we are very near it.—Shafts and Winzes: Henty's shaft, below the 90, is being sunk as fast as possible, but the hardness of the ground makes the progress slow. Lowndes' shaft, below the 70, produces 1 ton per fathom. We have commenced the sinking of this shaft, and shall get it down as fast as possible. Diaz's winze, below the 55, yields 3 tons of ore per fathom. Casado's winze, below the 40, is worth 2 tons per fathom; the lode is large and regular, composed of quartz and lead ore.—South Lode: The lode in the 50, east of San Pedro shaft, yields ½ ton per fathom. The 50 west is worth 1 ton per fathom; the lode has a kindly appearance, and we hope to have an improvement shortly. In the 40 west the ground is hard, and the lode is small and poor.—Los Salidos Mine: In the 100, west of Morris's engine-shaft, we have had some very good stones of lead ore since last report, but it has again become poor. In the 65, west of San Carlos shaft, the lode is still very small, and, judging from the upper levels, our prospects are not good in this direction. The 100, east of Morris's engine-shaft, produces 1 ton of ore per fathom; this end has been rather poor since last report, but we are glad to say it is again improving in size, value, and character. The 90, east of Cox's shaft, has entered a strong cross-course, and is, consequently, of no value at present. The 75, east of San Pablo's shaft, is worth 3½ ton of ore per fathom; the lode, which has been very changeable for some time, is divided into several branches, and is not, therefore, nearly so rich as it has been.—Shafts and Winzes: In Buenos Amigos shaft, sinking below the 90, there is more lode than when last reported on, and good stones of lead ore are found at times. San Gabriel shaft, below the 90, produces 1 ton of ore per fathom; the lode has fallen in value since last report, and the ground is harder for sinking. Corzo's winze, below the 90, produces 3½ ton of ore per fathom. Ramon's winze, below the 75, produces 2 tons of ore per fathom. This new winze is situated east of Carrascosa's winze, and in advance of the 90 east; the lode is large and strong, composed of quartz, clay, and lead ore.

LINARES.—Aug. 29: West of St. Tomas Engine-Shaft: In the 110, driving west of engine-shaft, the lode is disarranged and unproductive. The 45, west of No. 159 winze, and the 45, east of the same, each produces 1½ ton of ore per fathom; the lode in both these ends has been very changeable of late, but it appears to be re-forming, and we hope will shortly resume its usual rate of productiveness. The 31, east of San Francisco shaft, is worth 1½ ton per fathom; this at a cheap rate of driving is opening a good run of tribute ground.—East of Engine-shaft: The 95, east of Taylor's cross-cut, yields ½ ton of ore per fathom; very good lead was broken in this level in the past month, but the lode is at present poor. The lode in the 95, east of No. 154 winze, is strong, containing good stones of lead ore. In the 95, west of No. 154 winze, the lode is unproductive.—Shafts and Winzes: Warne's engine-shaft, sinking below the 75, is finished to the requisite depth for an 85 fathom level. The lode in No. 160 winze, below the 61, is large and strong, yielding 3 tons ore per fathom. The 161 winze, below the 55, is worth 3½ ton per fathom; the lode in this stock is not so productive as it was. The stopes produced a good quantity of ore in the past month, and we are enabled to estimate the raisings for September at 27 tons. The machinery and all other surface works are going on satisfactorily.—Los Quinientos Mine: The 32, east of Taylor's engine-shaft, produces 2 tons of ore per fathom; the lode has greatly improved in this level in the last few days, and is now very rich in the bottom of the end. The 32, west of Taylor's engine-shaft, is worth 2½ tons of ore per fathom; this level opened some rich ground in the beginning of the month, but has failed lately. In Taylor's engine-shaft the sunmen were occupied the greater part of the past month in cutting flat for cistern and bearers, fixing the standing-lift, and also one for sinking; a good penthouse has been put in, and the shaft made ready for sinking to the 45, which will be carried on with great dispatch. Addis's shaft, below surface, now yields ½ ton of ore per fathom; the lode is still strong, but has somewhat declined in value. The men are now getting on very well in sinking Cox's shaft below surface.

ALAMILLOS.—Aug. 29: In the 4th level, driving east of La Magdalena shaft, the lode is small, yielding 3½ ton of ore per fm. The 5th level, west of La Magdalena shaft, yields 3 tons of ore per fathom; the lode is large, open, and easy for driving. In the 4th level, west of the same, the lode has failed considerably in the last few days. The lode in the 5th level, east of Taylor's engine-shaft, is open and ugly, yielding 1 ton of ore per fm. The lode in the 5th level, west of Taylor's shaft, is large, chiefly composed of carbonate of lime and lead ore, producing of the latter 1 ton of ore per fm. The 4th level, west of San Andriano shaft, is poor at present. The men are rising in back of the 3d level, west of San Yago shaft, against Alfonso's winze. The 2d level, east of Judd's shaft, is worth 1 ton per fm.; the lode is improving, and is of a very kindly appearance. In the 2d level, west of Crosby's cross-cut, is worth 1½ ton of ore per fm.; this drive continues to open good tribute ground. The 5th level cross-cut north, towards the lode, will be extended a little further, to prove whether there is any more lode yet standing to the north.—Shafts and Winzes: Taylor's engine-shaft, sinking below the 5th level, yields ½ ton of ore per fathom; the lode is large, strong, and spotted with lead. Henty's shaft, below the 1st level, produces 4 tons per fathom; this is going down in a very rich lode, and the men are getting on well with sinking. San Guillermo's shaft, below the first level, is again dry, and the sinking will be pushed on as fast as possible. Torrente's winze, below the 4th level, is worth 1 ton of ore per fathom; the lode is large, strong, and lead throughout. Perez's winze, below the 2d level, yields 1½ ton per fm.; this is down to the 45, but the end is standing to the north, and will require a short cross-cut to hole it. The tribute department has not undergone any unusual alteration in the past month, and continues to yield a fair average quantity of mineral. We estimate the raisings for September at 250 tons.

CAPULA SILVER.—Capt. Paul, Aug. 7: Last week three English and nine natives sunk 3½ varas; the ground is still very hard, but there is a branch in the north-east corner letting out a large quantity of water of a more favourable appearance; on cutting the branch we had to increase the engine to ten strokes per minute, but it is still back again to about seven strokes. We have got everything ready for the 10-in. lift, in case the water should overpower the 7-in. San Enrique has improved in appearance, and the ground is more favourable for driving. Last week four men drove 3½ varas; from the present indications we think there will soon be a great improvement in the lode. The ground in the Esperanza level is also a little more favourable, letting out much more water, which we expect is coming from the old workings of La Cigüena; the lode at present is unproductive, but we are daily expecting a favourable change, especially as we know we are getting under the old workings, where the lode was very productive. In the end driving west from La Bomba shaft, to communicate with the end from San Jorge rise, the ground is very hard, producing a little azogue ore; and in the end, east of San Jorge, there is a good lode of fair quality ore. We have not yet resumed the working of the best steps in San Jorge, which were suspended to get the men to work in the shaft, but we intend doing so next week. The water is not yet gone from the Esperanza level, west of La Bomba shaft, owing, no doubt, to the increase of water in the end; we are putting in launders to convey the water back to the main adit. We have commenced clearing the San Miguel adit in the western part of the set; the level is quite dry, now drained, no doubt, by the engine. There are a great deal of old workings open to the surface, and winzes, they say, 70 varas below the adit, with good metal, but still full with water, which no doubt will drain as we go on sinking the engine-shaft. I have not received the account of the proceeds from the 27½ mares of silver sent to Mexico by the last conductors. Torta No. 6 was incorporated on the 29th ult.; the assay is 29 mares per monton; if we get the good results from this as we had from No. 5, we shall get three full bars. Our own animals will nearly supply the engine with fuel, and after the mules are a little more accustomed to the cargo (packsaddle) we shall put them to carry metal to the haciendas. The new stable is completed, with a good straw room, a large enough to contain 200 arrobas. We have made an addition to the ore yard, over which we are building a room for two or more Englishmen to live in for the protection of the metal. We have laid open a large piece of ground for the hacienda; the first wheel-pit is also cut, nearly in solid rock, and the same for taking the water to the second wheel; we should have built a great deal of the wall in the river, but finding the lime we had for some time was not suitable for the purpose, we have delayed building it until we can get a new lime. We shall carry on the work of the hacienda as fast as our means will let us. This week we have burnt a kiln of bricks more than sufficient to finish the stack,

the next kiln will be for the calcining furnaces.—P. S. Since writing the above I have arranged with a fitero to take the metal to Sanchez for \$1 the carga of 12 arrobas, he will take about 100 cargas weekly.

RHENISH CONSOLIDATED.—G. Sweet, Wiehl, Sept. 3: Christians: The western drivage at the 20 lachter level is still presenting a good appearance, and affording 2½ tons of lead ore per lachter; the eastern end of this level will yield 1 ton of lead ore per lachter. The western drivage at the 10 lachter level is improved, and will now afford fully 15 centners of lead ore per lachter. The adit drivage west is still poor. A stope west of Pittar's winze, at the 20 lachter level, will afford 2½ tons of lead ore per lachter. A stope in the roof of the adit level, west of Sweet's winze, will afford 1½ ton of lead ore per lachter. The sinking of the engine-shaft will be forced on as rapidly as possible.—Bleibach: The drivage west on the middle lode, at the adit level, will still afford 1 ton of lead ore per lachter. A stope on the middle lode, west of the cross-cut at the 10 lachter level, will afford 1 ton of lead ore per lachter. A tribute bargain on the north lode, west of the cross-cut at the 10 lachter level, will afford 15 centners of lead ore per lachter. A tribute bargain on the middle lode, west of the cross-cut in the bottom of the adit level, will afford 15 centners of lead ore per lachter. A stope on the south lode, at the 10 lachter level, will afford 6 centners of lead ore per lachter. A stope on the south lode, at the 10 lachter level, will afford 1½ ton of lead ore per lachter. The cross-cut driving south at the 10 from the north level has passed through a small branch of lead ore, but we do not think it is the main part of the middle lode, consequently we shall push the cross-cut a little further on. Estimated returns for August: Christians and Bleibach: Lead ores, 600 centners, 170 thalers; blonde, 100 centners, 130 thalers; Fahrenberg lead ores, 30 centners, 90 thalers;—Fahrenberg, 60 thalers—1910 thalers; blonde, 10 thalers. By pumping with steam-power the last three months the consumption of coal has amounted to at least 600 tons, more than it would have been had there been water to work the water-wheel; but we hope the dry season is nearly over, and that we shall soon have water sufficient to enable us to pump with water-power.

VAL SASSAM.—T. Rickard, Sept. 5: The driving of the Cantina end was resumed in the latter part of last month. The lode in the present end produces a little saving work. The stopes in the Cantina are looking nearly the same as for the last three months, and in August they have produced their usual quantity of ore. The principal surface tribute pitch has, during the month, failed to turn out as formerly, and for the present does not look promising. We have been obliged to raise the tribute at this place from one-fourth in 17, to half nearly. The level driving west on the lode met with in the Roffia cross-cut, in July, has gone forward 8-80 metres. No change in the lode. As I have already informed you, the progress of the work in the western ground, at Roffia, suffered a good deal of hindrance in the early part of last month, by means of slips of the overlying earth during the heavy rains we then had. The latter part of the month the place has been clear, and the men have cut into the ground to the right of where they had been working, and opened on a piece of lode which, though, producing fine detached stones of ore as before, has not settled into anything that we can call a shoot or run of ore. The four men have now taken to drive a level there, at 6 fms. per metre, and 40 fms. per quintal of ore, or (say) 4 in. 17. Having now been able to begin to drive there will not be the same reason for loss of time as before. Of the other trial at Roffia, of which mention was made in my last report, I have only to say that we have continued to find a little ore, and have made the place ready for a pitch; but we shall not care to raise any more of the low ley stuff, such as would be produced at that place, until we have seen the result of the intended experiment in smelting.—Tospino: We shall to-day sample and make ready for delivery to the Stolberg Smelting Company about 17 tons of ore, the produce of July and August.

GONNESA.—R. W. Rickard, Aug. 3: San Giovanni Mine—Lead Section: Little has been done in Caroline's shaft during the past month, owing to having a little water there; the season being unusually unhealthy, men refuse to work in water. Taylor's level was extended westwards 5 metres only during the past month; the lode for that length was found to vary in size from 1 metre to 1-50 metres, and yields 1 to 2½ tons of ore per fathom. The present end of the level will yield only about 1½ ton of ore per fathom. We have driven the cross-cut south from Taylor's level east 6-50 metres in the month; Victor Emmanuel level was driven 8 metres west in the month; the lode there is at present poor, and has been so during the whole of the present month. On the whole, our end at this stage are poor, but we have every reason to hope for a speedy improvement. We know that we must soon enter good courses of ore by both ends of the 30 metre level, having sunk winzes in from Taylor's.—Calamino Section: We have had a very few men working in this section of the mine during the past month, owing to the scarcity of labourers. The deposits of ore seem to continue bad in length and in depth; they are very irregular, and are difficult to describe. We have a large stock of ore here ready for the furnaces, which we shall send during this summer to the calcining establishment at Gonnese.—San Giovanni Mine—Lead Section: The 30 metre level was extended west from shaft in the month 9 metres on No. 2 lode; this ground is estimated at 2 tons of ore per fathom; the present end of this level will yield fully 2½ tons of ore per fathom. The lodes at this level improve fast as we go down. Nicolay level was driven 8 metres during the month; the lode there averages from 1 to 2 tons of lead ore per fathom.—Calamino Section: We have worked regularly on the several deposits of this ore in this mine during the month, but not so vigorously as we should have done were miners more plentiful. No change in the stopes. By working regularly we can keep two furnaces well supplied with ore, which would require about 800 tons of crude ore per month.—Monte Cani Mine: The tributaries have almost closed this mine for the harvest fields, and they have not yet returned. We have, therefore, suspended the operations on the lead lodes for the summer, and are sending several companies of men to raise calamine.—Aqua Real Mine: We have extended the Campo Spinio level during the month 14 metres in a splendid lode of calamine. We do not know how wide this lode is, as we have not cut through it. Both sides of the level are pure calamine, of about 45 per cent. for zinc. This deposit will not only enable us to maintain our present rate of returns for a long time, but will also have the effect of increasing the percentage of the ore sent to market. On the whole, we consider this mine to look most promising, and one that cannot fail to give good results.

WEST CANADA.—F. Williams, Aug. 17: Huron Copper Bay: The stop east of Stephen's winze is worth 2½ tons per fathom. The stop in bottom of the 20, west of Palmer's shaft, is worth 2 tons per fathom. The stop east of Palmer's, 3½ tons per fathom. The stop east of Palmer's, below the 30, is worth 2 tons per fathom. Palmer's winze, below the 50, has not changed since last reported on. The 60, west of Bray's engine-shaft, still looks poor, the lode being very much disordered, but we hope for an improvement as we proceed further west. The cross-cut south of Bray's, at the 50, is still being pushed on, but at the present time there are no indications of the lode being near. The lode in the 35, east of Bray's, on the Fire lode, continues poor. The stop over the 35, east of Bray's, is still good, and is worth 3 tons of rich ore per fathom. The stop in the back of the 10, west of Palmer's, is finished; this piece of ground gave us several tons of ore last month. The stopes east and west of Powell's winze, on the Fire lode, are worth 1½ ton per fathom.—Wellington: The 40 west of Crase's shaft, is holed to Thomas's winze, and a few days will complete this contract. The stop below the 24, east of Mitchell's shaft, is worth 2 tons per fathom. The stop below the 36, east of Mitchell's, is worth 1½ ton per fathom. The 36, east of Mitchell's, is worth 1½ ton per fathom. The stop east of Rowe's shaft is worth 2½ tons per fathom. The lode in Rowe's shaft has not changed since last reported on. The stop west of Rowe's shaft is worth 1½ ton per fathom.—Bruce Mine: The stop in the bottom of the 25, east of Trial's, is worth 1½ ton per fathom. The north branch at the 25, east of Trial's, has become very small and poor, and does not appear to be productive, only when it joins the main lode.—Taylor's Shaft: The 12, east of this shaft, is worth 1 ton per fathom; the lode in this level still continues from 7 to 8 ft. wide, and we all think it very strange that it does not become more productive. The 12 west is worth 1½ ton per fathom. The rise and slope in the back of the 12, west of this shaft, is worth from 1½ to 1¾ ton per fathom. We shipped on Aug. 4, per steamer Arcadia, 142 barrels, and we expect the same steamer again on Sept. 1 with another cargo.

LUSITANIAN.—Taylor's engine-shaft is idle, as the water is in, and the shaftmen are stopping above the 110 fm. level, east and west, where the lode is worth 1 ton per fathom.—Levins on Basto's Lode: The lode in the 100 fathom level, east of River shaft, is 1½ ft. wide, composed of flookan. In the 100, east of Taylor's shaft, the lode is 6 ft. wide; the north part is quartz, and the south part is flookan. In the 120, west of the same, the lode is worth 1½ ton per fm.; this end is holed to winze No. 73, below the 110 fm. level. The water is in these latter ends, and the men are put to stop. The lode in the 110, east of shaft, is worth 1 ton of ore per fathom. The 110 west is worth ½ ton per fathom. In the 90, east of River shaft, the lode is 1½ ft. wide, composed of flookan. In the 90, east of the same, the lode is 1 ft. wide, composed of quartz, and some stones of ore. In the 38, west of Perez's shaft, the lode is 4 in. wide, composed of flookan and quartz. In the 8 fm. level, west of the same, the lode is 4 in. wide, composed of flookan. In the adit west of the same the lode is 6 in. wide, yielding ½ ton per fm.—Levins on Caunter Lode: The 100, east of Taylor's cross-cut, with a lode composed of flookan, is suspended. In the 90, east of the slide, the lode is 1½ ft. wide, composed of flookan and quartz.—Levins on Ponte Lode: In the 28 fm. level, east of the slide, the lode is in two parts; the north one contains stones of ore, and the south one is composed of quartz.—Slide Lode: In the 110 fathom level, west of Taylor's shaft, the lode is 4 ft. wide, composed of flookan and country. In the 60 fm. level, cross-cut, south of River shaft, the ground is a hard gneiss.—Winze: Winze No. 73, below the 110 fm. level, west of engine-shaft, is holed to winze No. 75, below the adit level, west of Perez's shaft, is 6 in. wide, containing stones of ore. In winze No. 76, below the 28 fm. level, west of same, the lode is worth ½ ton per fm.—Carvalhal: The lode in the incline shaft, sinking below the 40 fm. level, is small and unproductive, but we think there is more lode to the south part.—Levins on the Great Lode: In the 40 fm. level, east of incline shaft, the lode is 2½ ft. wide, worth 1 ton of lead per fm. In the 20, east of the same, the lode is 12 ft. wide, composed of quartz, country, and lead, worth 2 tons per fm. In the 40 fm. level, east of incline shaft, the lode is 5 ft. wide, composed of quartz, country, and mud, and lead, worth ½ ton per fm.

[ADVERTISEMENTS.]

From Messrs. WARD and JACKMAN:—Owing to recent improvements that have taken place at several mines, much greater activity has been apparent in the Mining Share Market during the past week. It is a most remarkable fact that reported discoveries in mines seldom come single, and we have known them follow each other in such rapid succession that we have often heard doubts

WATSON BROTHERS' MINING CIRCULAR

WATSON BROTHERS,

MINING AGENTS, STOCK AND SHARE DEALERS, &c.
1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON.

MESSRS. WATSON BROTHERS return their most sincere thanks for the great patronage bestowed and confidence reposed in their firm for 25 years, and to assure their friends and clients it will be their earnest endeavour to merit a continuance of both.

Messrs. WATSON BROTHERS have made arrangements for continuing their weekly Circular, which has had a large circulation for many years, to the columns of the *Mining Journal*, their special reports and remarks upon mines and mining, and parts of the share market, will in future appear in this column.

In the year 1843, when Cornish mining was almost unknown to the general public, attention was first called to its advantages, when properly conducted, in the "Compendium of British Mining," commenced in 1837, and published in 1843, by Mr. J. Y. WATSON, F.G.S., author of "Gleanings among Mines and Miners," "Records of Ancient Mining," "Cornish Notes" (first series, 1862), "Cornish Notes" (second series, 1863), "The Progress of Mining," with statistics of the Mining Interest, annually for 21 years, &c., &c. In the Compendium, published in 1843, Mr. WATSON was the first to recommend the system of a "division of small risks in several mines, ensuring success in the aggregate," and Messrs. WATSON BROTHERS have always a selected list on hand. Perhaps at no former period in the annals of mining has there been more peculiar need of honest and experienced advice in regard to mines and share dealing than there is at present; and, from the lengthened experience of Messrs. WATSON BROTHERS they are emboldened to offer, thus publicly, their best services to all connected with mine or the market, as they have for so many years done privately, through the medium of their own Circular.

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MONDAY.—Good demand for Prince of Wales, Chiverton Moor, West Chiverton, Grenville, East Grenville, and Great Laxey. Yudanamutana receded to 3, sellers, but leave of 4, buyers. Chiverton Moor, 6½ to 6¾; Chontales Gold, 2 to 2½; East Caradon, 2½ to 3; East Grenville, 2 to 2½; Frontline and Bolivia Gold, 1½ to 1¾; Great Laxey, 17½ to 18½; Great Wheal Vor, 12½ to 13; Marke Valley, 7½ to 7¾; North Treskerby Vor, 3 to 10¾; Prince of Wales, 36s. to 38s.; West Chiverton, 60½ to 61½; West Seton, 150 to 160; Wheal Emily Henrietta, 28 to 30; Wheal Grenville, 2½ to 3¼; Wheal Seton, 45 to 50; Don Pedro North del Rey, 3½ to 3¾; Yudanamutana, 3½ to 4¾.

TUESDAY.—The market is quiet. Prince of Wales in demand at an advance, 35s. to 37s.; Chiverton Moor, 6½ to 6¾; Chontales, 2 to 2½; East Caradon, 2½ to 3; East Grenville, 2 to 2½; Great Retallack, 3 to 3½; Great Laxey, 17½ to 18½; Marke Valley, 7½ to 7¾; Wheal Grenville, 2½ to 3¾; Wheal Seton, 45 to 50; Don Pedro North del Rey, 2½ to 3; Yudanamutana, 2½ to 3½.

WEDNESDAY.—Good demand to-day for Prince of Wales at a further advance. Yudanamutana receded to 3, sellers. Chiverton Moor, 6½ to 6¾; Chontales Gold, 2 to 2½; East Caradon, 2½ to 3; East Grenville, 2 to 2½; Frontline and Bolivia Gold, 1½ to 1¾; Great Laxey, 17½ to 18½; Great Retallack, 3 to 3½; Marke Valley, 7½ to 7¾; Prince of Wales, 36s. to 38s.; West Chiverton, 60½ to 61½; West Seton, 150 to 160; Wheal Emily Henrietta, 28 to 30; Wheal Grenville, 2½ to 3¾; Wheal Seton, 45 to 50; Don Pedro North del Rey, 3½ to 3¾; Yudanamutana, 3½ to 4¾.

THURSDAY.—An active demand for East Grenville, at 2½ to 2¾. Great Retallack 3½ to 3¾; South Herdfoot, 17s. 6d. to 22s. 6d.; Prince of Wales, 37s. to 39s.; Herdfoot, 39 to 41; Marke Valley, 7½ to 7¾; Don Pedro, 3½ to 3¾; Yudanamutana, 2½ to 3; Chontales, 2 to 2½.

FRIDAY.—An active demand to-day for East Grenville, at 2½ to 2¾. Great Retallack 3½ to 3¾; South Herdfoot, 17s. 6d. to 22s. 6d.; Prince of Wales, 37s. to 39s.; Herdfoot, 39 to 41; Marke Valley, 7½ to 7¾; Don Pedro, 3½ to 3¾; Yudanamutana, 2½ to 3; Chontales, 2 to 2½.

Mining Correspondence.

BRITISH MINES.

Abraham CONSOLS.—J. Vivian, Sept. 10: The lode in the 27, driving east of No. 2 shaft, is 1 ft. wide, saving work for tin, and very promising, not yet out of the influence of the series of cross-courses we have been driving through. In the 27 west the ground is hard; lode 18 in. wide, with stones of tin, but not enough to value, with indications of better ground, and an improvement in the lode.

BEDFORD CONSOLS.—J. Mitchell, Sept. 9: Saturday last being our pay and setting the following bargains were let:—The middle adit level to drive west on the new south lode by four men, at 3½, 5s. per fathom, 2 fms. stent, or cut the first cross-course. The main part of the lode is standing to the south of the drivage, it having changed sides with the floor, therefore we shall continue to drive by the side of the lode for some short distance before cutting it through. The end to drive east on the new south lode by two men and two boys, at 3½, 15s. per fathom, 2 fms. stent, to work as directed. The ground at this point has become much stiffer for progress than for some time past. No lode has been taken down here since last reported on.

BRYN GWIOG.—S. Harper, Sept. 9: The lode in the 85, west of Bramwell's shaft, is a little improved since my last, having met with a nice rib of lead ore towards the bottom of the end, from which we have broken some nice-looking stuff, but the ground being so hard our progress is slow for opening, but I hope a further improvement will take place soon. The lode in the 75 west continues much the same, with a small bunch of lead towards the bottom of the end, but not to value. The lode in the winze in the bottom of this level continues in value much the same as for some time past, but a little increase in size, worth 1½ ton per fm. In the 66 west, on Broke's old run, nothing new to remark. Lloyd's shaft is cleared to the 60 yard level, but have still ground to take down and secure, &c.; it appears as if there is a level driven west, but this I shall be able to say more about in another week. Our tribute pitches are not looking quite as well as formerly.

CAPE CORNWALL.—Richard Pryor, Francis Hosking, Sept. 9: The following bargains were set again on Saturday last:—The 100 fm. level cross-cut to drive north of engine-shaft by four men, at 11, per fathom. We are constantly meeting with small branches in this end, which contain mundic, spar, and spots of copper ore; the ground is very congenial for the production of copper. Since the 90 fm. level winze has been communicated to the 100 we have discovered a part of the lode still standing to the south of the level, and we have set to two men to take down the same, and have already broken from it some good work for tin; its size and value we will report on when it is cut through. This part is standing for a great many fathoms in length.

CARN CARMORNE.—J. Truscott, Sept. 9: The ground in the engine-shaft, sinking below the 70, is very favourable, and good progress is being made. The lode in the 70 west is 8 ft. wide, composed chiefly of capel, peach, mundic, and copper ore, worth for the latter 12½ per fm., a very strong and promising lode. In the 60 west the lode is poor. The ground in the 60 cross-cut north is much of the same character as for some time past. There are four stops in course of working, averaging in value 8½ per fm.

CASTELL CARN DOCHAN.—J. Parry, Sept. 10: We have abandoned the second cutting by the smithy, on account of the water. The ground in the deep cross-cut has been very hard during the last few days. The lode stuff from the other cutting yielded by assay 33½ dwts. of gold per ton.

CUDDRA.—F. Packey, Sept. 9: In the 142 fathom level end, west of Walker's shaft, we have commenced to cross-cut the lode, to prove its size and value. The lode in the stopes in the back of this level, east of the winze, is 8 feet wide, and worth 14½ per fathom. In the 130 west we are rising in the back of the level, to communicate with the winze sinking below the 100. The ground in the rise is rather spare for progress. In the stopes behind the 130 fathom level end we are desuing the lode, consequently no lode has been taken down here since last reported on. The winze sinking below the 100 is urged on with all possible speed, and is now down 7½ fathoms. The lode in the western stope, in the back of the 100, is 8 feet wide, and worth 10½ per fathom. In the eastern stope the lode is 6 feet wide, and worth 8½ per fathom. The lode in the 100 is 9 ft. wide, and of a very promising character, and worth for tin 14½ per fm. All other parts of the mine are without alteration.

EAST CARADON.—J. Truscott, Sept. 9: Caunter Lode: The 115 east is being driven by the side of the lode. The 100 east and west is poor. The 90 east is worth 5½ per fathom. —South Lode: The 70 west is worth 5½ per fm.—Childs' Lode: The 80 east is poor. The 80 west is worth 15½ per fathom. The 70 east is worth 18½ per fathom. The 70 west is worth 6½ per fathom.

EAST CARN BREA.—Isaac Richards, Sept. 9: The lode in Thomas's engine-shaft is 1 foot wide, composed of quartz, capel, mundic, and a little copper ore, —Thomas' Engine-Shaft, No. 3 Lode: In the 90 east the lode is small and unproductive. The lode in the 90 west is 2½ feet wide, composed of capel, quartz, fluor, mundic, and saving work for tin and copper ores. The lode in the 80 west is 3 feet wide, consisting of capel, quartz, fluor, mundic, and copper ore, worth 1½ ton per fathom. The lode in Tom's rise, in the back of the 80 east, is 1 foot wide, and worth 1 ton of copper ore per fathom. The lode in Morcom's rise, in the back of the 80 west, is 1½ foot wide, and worth 1½ ton of copper ore per fathom. The lode in the 40 west is 1 foot wide, and worth 1 ton of copper ore per fathom. —Buckley's shaft, No. 6 Lode: The lode in the 60 east is 1½ ft. wide, consisting of capel, quartz, fluor, mundic, and good stones of copper ore.

EAST DARREN.—Sept. 8: Taylor's Shaft: In the 116 east, cutting down the south side, the lode is 4 ft. wide, not looking quite so well as when last reported; now producing 1 ton of ore per fathom. In the 104 east the lode is from 4 to 5 ft. wide, yielding saving work for dressing, of low quality. In the winze sinking below this level the lode is still large, and producing 1½ ton of lead ore per fm. In the 92 east the lode is 1½ yard wide, yielding 2 tons of lead ore per fathom. In the winze sinking below this level the lode is 1½ yard wide, not looking quite so well as when last reported; now yielding 1½ ton of ore per fathom. In the 92 west of boundary, the lode is 1 yard wide, and hard for exploring. In the 80 east the lode is 1½ yard wide, yielding small strings of lead at times, and which we think is improving. There is no change in the 30 north. The lead in the winze is dipping north fast, and, therefore, we may have a fathom or two more to reach it in the 30 fm. level.

are now at work cutting plat preparatory to sinking. At the new shaft at Blaenavon we have suspended the sinking for the time, and the men put to assist the masons in building the wheel-pit, taking down the wheel, and getting the lift in order as fast as possible. In the cross-cut north, at New Pool, no part of the lode is intersected yet.

EAST PROVIDENCE.—J. Nancarrow, W. White, Sept. 5: At our survey today the following work was set:—Boorman's shaft to sink below the 106, by nine men and three boys, at 27½ per fm.; the ground is improving, and is more congenial for tin. The 106 to drive east, by six men, at 40, 10s. per fm.; lode rather small. The 94 to drive east, by four men, at 40, 10s. per fm.; lode looks intersected by a crossing, containing tin, and which is likely to improve. The 70 to drive east, by four men, at 7½ per fm.; lode looks promising. The 50 to drive east by two men, at 5½ per fm.; lode becoming more regular. We have also set 14 pitches to 28 men, at an average tribute of 11s. 6d. in it.

EAST ROSEWARNE.—Charles Glasson, Sept. 10: In the 115, west of King's shaft, the lode is 12 in. wide, worth 6½ per fathom. In the 115, east of shaft, the lode is 10 in. wide, worth 5½ per fathom; the stopes in the back of this level are worth 6½ per fathom. The 105, west of shaft, is suspended for the present, and the men are put to rise in the back of the end, to prove the lode of ore which has gone down in the bottom of the 95. The stopes in the back of the 105, east of shaft, are worth 6½ per fathom; the stopes in bottom of this level are worth 6½ per fathom. In the 95, west of shaft, the lode is 18 in. wide, worth 8½ per fathom. We have resumed the driving of the 95 east of shaft; lode 15 in. wide, producing stones of copper ore, but not enough to value. The stopes in back of the level, just over the end, are worth 7½ per fathom. The stopes in back of the 85, west of shaft, are worth 6½ per fathom.

EAST WHEAL GRENVILLE.—G. R. Odgers, Wm. Bennetts, Sept. 5: The lodes in the 110 east and rise are looking precisely the same as we stated in our last report. The lode in the whine sinking below the 95 east, on the caunter, will produce 1½ ton per fathom. The lode in the 75, east of the cross-cut, on the caunter, is 20 in. wide; in the bottom of the level for 4 feet above the bottom there is a good branch of yellow ore, which will produce 4 tons; upwards the lode will produce 3, so that the value of the lode is 3½ tons per fm.—a good lode. We are getting on very well with the cross-cuts.

EAST WHEAL LOVELL.—R. Quenat, Sept. 9: The mine continues to look very well. We have commenced sinking on the north lode, below the 60 fathom level, where the lode is worth 35s. per fm. The south lode, below the 45 fathom level, is worth 50s. per fathom.

EAST WHEAL RUSSELL.—W. Richards, Sept. 10: The ground in the 130, east of Davey's cross-cut, is a mixture of killas and elvan; the part of the lode contains capel, quartz, peach, mundic, and a little copper ore; this operation is wet and troublesome. The lode in the 100, east of the cross-cut, retains its size of 4½ ft. in width, and on the footwall there is a leader of mundic and yellow copper ore, and the lode altogether assumes a more promising appearance at this level. We have come to a point in the north boundary adit, where there is another cross-cut, but how far it may be driven we cannot say now. We shall continue to follow the source of the water until we come to the end of the workings, which are already very extensive.

ERBURY.—W. Kitto, Sept. 10: The lode in the 50 end east is large and full of small "loughs," which makes it rather slow to drive. We are pushing the end as fast as possible to intersect the "swallow," that we may drive west under the ore ground. The ground in the shaft is hard. We appear to be in a "horse," with lode on each side, which will be proved by a cross-cut as soon as we reach the next level.

FRANK MILLS.—J. P. Nicholls, John Cornish, F. Cornish, Sept. 9: In the 145 fm. level cross-cut, east from the north end, we have not intersected any more lode, but the ground continues much the same. The east lode, in the 145 south, is about 2½ ft. wide, consisting of quartz, principally with white iron, mundic, and spotted throughout with lead ore. The stopes in the back of this level, opposite the engine-shaft on east lode, is yielding 3½ ton of lead ore per fathom. A stope in back of this level north, on same lode, is yielding ½ ton of ore per fathom. The ground in the cross-cut west, from the 130 north, is very favourable for progress, but no more lode has been intersected. The stope in the back of the 115 north, on west lode, continues to yield ½ ton of lead ore per fathom. We have intersected Hancocks lode by a cross-cut west in the 72 fm. level north, and driven on its course north and south about 4 fms., which has averaged ½ ton of lead ore per fathom. The lode in the north end at present is yielding ½ ton, and in the south end ½ ton per fathom. The winze and rise from the 45 to the 60, referred to in our last report, have been communicated, and the ventilation of the 60, south end, made perfect; this end, therefore, has been resumed by six men, the lode in which is yielding ½ ton of ore per fathom. We have also commenced a stope in back of the 60, north from said winze, which is yielding on an average ½ ton of lead ore per fathom. The lode in the stope in back of the same level, north from old winze, is yielding ½ ton per fathom. The tribute department, on the whole, is producing about the usual quantity of ore, and good progress is being made in the dressing department towards the next sampling.

GAWTON COPPER.—G. Rowe, G. Rowe, Jun., Sept. 5: The ground in King's engine-shaft, sinking below the 70, is without change since last reported on. We have met with some fine stones of ore in cross-cutting through the lode, at the 70 west, and the ground moderately easy for progress. The lode in the 70, east of King's shaft, is worth 6 tons of ore per fathom. The lode in the 60 east is producing occasional stones of ore. The lode in Nicholl's winze and stope going down below the 60 is showing indications of improvement in the deepest point, where the lode is worth from 4 to 5 tons of ore per fathom. To-day will be our monthly setting, particulars of which we will forward early in the coming week.

GOGINAN.—Sept. 9: The lode in the 110, east of the winze, below the 100, is very large, and the part upon which the level is being extended will yield 14 cwt. of ore per fathom. We have not resumed the driving of the 100 as yet, on account of the stuff not being cleared, but shall be able to do so in a few days. The stopes over the 100, east of rise, are producing on an average 16 cwt. of lead ore per fm. The lodes at the drift, east of cross-cut, is large, and will yield 12 cwt. of ore per fm. The stope over the drift, west of rise, is in a lode 5 ft. wide, producing 11 cwt. of lead ore per fm. The north lode in the 60 still looks promising, and yields good stones of ore. The tribute pitches in the old part of the mine continue to yield about 11 cwt. of lead ore per fm. The lode in the stope in back of the same level, north from old winze, is yielding ½ ton per fathom. The tribute department, on the whole, is producing about the usual quantity of ore, and good progress is being made in the dressing department towards the next sampling.

GLASGOW CARADON CONSOLS.—W. Taylor, Sept. 8: Caunter Lode: The 78 we-t is worth 5½ per fathom; the winze in bottom of the 65 is worth 5½ per fathom. The stopes in this lode are just as last reported.—Arrol's Lode: The 65 east to 60, per fathom. The stopes in this lode have improved a little.

HARVEY'S Lode: The 65 east is worth 9½ per fathom. In the 65 west the lode is improving; past the cross-course, worth 6½ per fathom. The stopes in this lode are worth from 8½ to 15½ per fathom. We have just sampled (computed) about 300 tons of ore, which will be sold on the 24th at Truro. I hope before that we shall get better standard.

CAPE CORNWALL.—Richard Pryor, Francis Hosking, Sept. 9: The usual meeting of shareholders being about to take place to-morrow, I beg to hand the following report for the occasion. Since the last quarterly meeting we have completed the sinking of the engine-shaft to the 82; the ground has occasionally been hard and troublesome for exploring, which to a certain extent retarded our progress. I am, however, glad to say we are down, and that the men are busily engaged in cutting plat, and driving the 82 cross-cut; the ground is hard, letting down a quantity of water, which causes me to hope that we shall shortly meet with more easy ground. The driving of the 82 cross-cut south of engine-shaft I am looking at with a great degree of interest, although some 16 fms. or 20 fms. have to be driven before the lode can be intersected, yet it is a

working of the mine I would recommend the sinking of the engine-shaft, as also the driving of the 35 fathom level east and the 25 fathom west on the course of the lode. By carrying out the above-named points you have, in my opinion, a fair chance of a lasting and profitable mine."

PORT PHILLIP AND COLONIAL GOLD.—Mr. Bland, Clunes, July 16: The quantity of quartz crushed during the four weeks of June was 5453 tons, yielding 2091 oz. 3 dwt. of gold, or an average of 7 dwt., 15 grs. per ton. The receipts were 7714L 17s. 8d.; payments (including 246L 18s. 10d. paid for balance of firewood and timber accounts), 4457L 11s. 10d., to which was added balance brought forward from last month, 499L 7s. 10d., making an available balance of 3749L 13s. 8d. The amount divided between the two companies was 3500L, the Port Phillip Company's proportion being 2275L. The balance of 249L 13s. 8d. was carried forward to next month's account. The quantity of quartz crushed during the first two weeks of July was 2847 tons, yielding 891 oz. 19 dwt. of gold, or an average of 5 dwt., 15 grs. per ton. During the third week 1411 tons were crushed, and the manager states, "I have no doubt of an improvement during the remaining portion of the month, as better quartz is now coming down from the mine, and we shall, in addition, have the results from pyrites." Remittances, 2263L 11s.

SCOTTISH AUSTRALIAN.—The directors have advices from Sydney, dated July 15. The sales of coal during June amounted to 13,566 tons, making a total for the half-year ending the 30th of month of 83,693 tons.

CADIANGULLONG CONSOLIDATED COPPER.—The directors have advices from Sydney, dated June 15. The directors are advised of the further shipment of 18 tons 1 cwt. 2 qrs. 19 lbs. of Cadia copper, per the Strathdon, at Sydney for London. The entire property of the company had been up for sale there on July 7, and passed into the hands of the Scottish Australian Mining Company and others, in proportion to their respective interests, for their advanced secured upon it.

AUSTRALIAN UNITED GOLD.—The directors have received advices to July 20, from which it appears that Mr. Kitto had begun operations at the Duke of Cornwall Mine, and was about to begin at the Central. In the adjoining mine to the north a new lode had been struck, giving 42 per cent. of stone, dipping directly towards this company's mine. Mr. Kitto writes: "Altogether our prospects are bright indeed." The directors have further the satisfaction of informing the shareholders that the vendors in the colony having a preference to receive 2200 fully paid shares (2L 10s. each) in place of 5500L of the cash remitted to pay them, in accordance with the terms of purchase—thus showing their confidence in the undertaking—the board have consented to carry out such an arrangement. This will only leave 1024 shares unissued.

CHONTALES—(from a City Correspondent).—Among the many unfounded rumours set on foot by the operators for a fall in the price of the shares are—first, that the directors have received intelligence of the death of Mr. Belt, the company's commissioner in Nicaragua; and, secondly, that the company is in debt to their bankers to the amount subscribed upon the debentures. Now, if shareholders—that is, those who have an interest in the success of the company, not those who allow their stock to be "carried over" from account to account, thereby materially assisting the "bears"—if the bona fide shareholders will but take the trouble (and in doing so they are acting only with justice to themselves), to enquire at the company's office, they will find that these rumours, like all others of a similar kind just now so freely circulated, are the baseless creations of those who continue to find it difficult to supply the stock they have previously sold. The fact that the officials of the company in Nicaragua are taking advantage of the depressed price of the shares to secure an interest in the enterprise is the most complete answer that can be given to silly stories, uttered by those whose "wish is father to the thought."

GOLD MINING IN WALES.—It was mentioned in last week's Journal that the prospects at Vigra and Clogau had much improved. Since then a remittance of more than 60 ozs. of gold has been received at the office in London. It is reported that the visible gold still holds on in the bottom of No. 6 shaft, and that the lode appears to be slightly improving in depth.

IMPROVED MACHINERY FOR MINE VENTILATION.—Mr. J. G. Jones, of Blaina, has patented an improved ventilating fan, which consists of a casing mounted on an axis, and provided with apertures for the admission of air from the outside. The casing has hollow arms formed upon it, which deliver the air into a hood, from whence it is circulated through the mine.

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

GOTHIC MINE, in the valley of the Rheidol, seven miles from Aberystwith.—The 40, which is the bottom level in this mine, is going eastward in a wide course of lead ore, yielding from 10 cwt.s. to 12 cwt.s. per fathom. This is on the south wall of the lode, which is 12 ft. wide. Further westward, about 7 fathoms east of the engine-shaft, the lode has been cut, and a good course of ore found on the north wall of the lode. This is at present standing, and represents reserves of ore 16 fms. long and 10 fms. high, or, at 87 per fm., 1290f. The present course of the ore in the end of the 40 has been seen in the back of the 30 for 15 fathoms long; it is principally whole to the surface; and it is my belief that there are some thousands of pounds worth of ore standing on this lode from the 40 to the surface, that will come away at a good profit.

BRYNYSWITH.—The dialing of the old driving of the deep adit shows that the old men have traversed out of the lode wrongly, or a distance of 10 fathoms to the south of Bonsall's. A cross-cut has now been commenced to regain the ore ground, which, according to the dial, will find it, and there ought to be good backs of ore standing. The deep adit north is fast approaching the north lode, with backs 120 fathoms high; should this strike ore ground, in all probability an immense quantity of ore will be taken away between the deep adit and the surface, where the lode has yielded ore in good paying quantities. I saw some good ore in the stuff from clearing the end of the deep adit east, on the south lode, which is being saved for dressing.

CWM DARREN MINE.—I examined the ground in which the new shaft is being sunk under the 10. It is intended to make this a new engine-shaft, as the old shaft is being left by the underlier of the lode. The lode in the new shaft is worth 4 to 5 cwt.s. of good silver ore per cubic fathom, which gives the mine a most favourable prospect for depth. There is a point some 50 fms. west of this where this lode (the Great Darren lode) is intersected by the lode running north-west from Cwmsymlog, or East Darren. This point is nearly reached by an adit cross-cut, with a back of some 20 fms. I believe this portion of the lode will turn out to be a valuable mine, as some tributaries have broken some tons of good ore at this point from the surface.

THE GREAT CWMSYMLOG, OR OLD DARREN MINE.—The new driving in Oliver's, or the deep adit, is in a most promising lode; a leader of spar and piau holds its course in the middle of the end 1 ft. wide; and on the south side there is a branch of beautiful spar, mixed with copper and sulphur. I think this will shortly open into a good lode of ore.

I was rejoiced to see such healthy action in the other mines of Cardiganshire. At Bwlch Consols the quantities of ore discovered in the eastern levels is something very considerable, and the new arrangements for dressing the ore, all by mechanical, will, in all probability, completely revolutionise our present system of lead dressing, and our ideas on that subject.

AT POWELL UNITED, at a point of novelty in mining machinery, I found a splendid oscillating-engine at work. The action of this powerful machine was concentrated in an axle, from the disc of which were taken motions for drawing the stuff, crushing the ore, and pumping the water. It appeared to me that this potent engine did its work most effectually and economically. The whole of the weight of the engine would not be much greater than that of the main-beam of a Corliss engine of similar power, and I cannot help thinking that the time is fast approaching when the low-pressure engine will have to give way to its formidable opponent of high-pressure. The Powell United engine was working at 55 lbs. per inch in the cylinder. The mine, although in an infant state, is giving about 100t. per month profit, or 8 per cent. on the capital of 10,000L; but from the description of the underground work by the manager (Capt. Trevehan), in the nature of things, must soon be giving more profit and interest on the capital, and it seems that no other investment in England can surpass that of the Cardiganshire mines.

PRINCESS OF WALES.—Both the prospects and progress of this promising young mine are all that can be desired. The engine-shaft is sinking by a full force of men at a rapid rate. The engine-house will be in course of building for the reception of a 50-in. cylinder engine (lately purchased) as soon as possible. The lode in the adit level is showing unmistakable evidences of great success, producing copper ore of good quality; from assay sent to the office, 15% per cent. of fine copper. Great praise is due to all interested in displaying their zeal, with economy, in carrying out such an important work.

AT EAST WHEAL GRENVILLE still continues to improve. The lode in the 40 west is now worth 6 cwt.s. of lead per fathom, and will continue to improve. The 50 will soon be led into. All who have visited the mine speak very highly of its prospects.

The LOVELL DISTRICT is likely to come into favour again very shortly. Trumpet Consols is now considered the best tin mine in Cornwall, whilst Lovell Consols is just beginning to show signs of improvement. During the past week they discovered a lode worth 20t. per fathom, and the manager can show some splendid rocks of tin which he has taken from the stopes. Surely this mine must be worth purchasing into.

COAL MARKET.—The arrivals this week numbered 121 ships, which proved rather more than the demand required, and we have to quote a reduction in house coals in some instances of 3d. per ton. Hartley's firm at late quotations:—Hetton Wallsend, 18s. 9d.; Haswell Wallsend, 18s.; Tees Wallsend, 17s. 9d.; Elliot's Wallsend, 17s. 3d.; Russell's Hetton Wallsend, 16s.; Tunstall Wallsend, 16s. Unsold, 22 cargoes: 15 ships at sea.

LONDON GENERAL OMNIBUS COMPANY.—The traffic receipts for the week ending Sept. 6 amounted to 11,578L 4s. 3d.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, SEPT. 11, 1868.

COPPER.	£ s. d.	£ s. d.	IRON.	Per ton.
Best selected, p. ton	76	0 0 78	0 0	Bars Welsh, in London
Tough cake and tins	73	0 0 75	0 0	6 10 0 6 12
Sheathing & sheets	78	0 0	—	Ditto, to arrive
Bolts	78	0 0	—	Nail rods
Bottoms	82	0 0 83	0 0	Staffd. in London
Old (Exchange)	68	0 0 70	0 0	7 10 0 8 10
Burras	80	0 0	—	Bars ditto
Wire.....per lb.	0	0 10 1/2	0 0	8 2 6 9 15
Tubes	0	0 11 1/2	0 0	Sheets, single
				9 2 6 11 0
				Pig No. 1, in Wales
				3 15 0 4 5
				Pig No. 2, in Wales
				3 15 0 4 5
				Refined metal, ditto
				4 0 0 5 0
				Bars, common ditto
				6 0 0
				Do. mchr. Tyneor Fees
				6 10 0
				Do., railway, in Wales
				6 0 0
				Do., Sved, in London
				9 17 6 10 0
				To arrive
				10 0 10 0
				Pig, No. 1, in Clyde
				2 14 3 2 18
				Do. f.o.b. Tyne or Fees
				2 9 6
				Do. Nos. 3,4,f.o.b. do.
				2 6 2 7 0
				Railway chairs
				5 10 0 15 5
				" spikes
				11 0 12 0
				Indian Charcoal Pigs
				In London, p. ton
				7 0 0 7 10 0
				STEEL
				Per ton.
				English blocks
				96 0 0
				Swed., in kegs (rolled)
				14 5 0
				(hammered)
				15 0 15 10 0
				Ditto, in faggots
				16 0 0
				English, spring
				17 0 23 0
				QUICKSILVER (p. bottle)
				6 17 0
				Spanish
				18 5 0 18 10 0
				* At the works, 1s. to 1s. 6d. per box less.

REMARKS.—A decided improvement has taken place in the Metal Market during the past week, and the amount of business done has very much increased, and there now appears a much more general disposition to enter into transactions than has been the case for many months. The orders from India have been of a better character, and there seems now every prospect that there will be more regularity in the transmission of orders from thence, and that it will be found a still greater improvement will take place. Should this prove to be the case, we may fairly look to the present improvement becoming permanent, and to again seeing the metal market return to its wonted activity and vigour. Prices generally have not materially altered during the week, but should an improved demand become established, we may look for an upward movement in prices, which have so long been depressed, but which, there is no doubt, under more favourable circumstances, would soon again recover themselves. In one branch of the trade, however, prices have advanced, and it is now impossible to execute orders at the figures which have ruled for some time. Altogether, there seems a much more hopeful feeling pervading the metal trade generally, and it is to be hoped that during the present autumn a considerable access may be made in the amount of business transacted, and that the latter portion of the year may, in some measure, make up for the dullness which has pervaded the market during the former part of it. At present the business which is done appears to be wholly of a legitimate character, based entirely upon demand, and hardly any speculative transactions have yet made their appearance; this state of things is certainly more desirable, and more likely to place matters upon a firm and permanent basis; but, doubtless, in an improved and altered condition of the market, it will be found that speculative operations will again be entered into.

COPPER.—The market for this metal still remains in an inactive condition, and transactions are comparatively of a trifling character. Prices have not materially altered during the week.

IRON.—In Staffordshire the state of the trade has not changed. The home demand is moderately good, and there is a tolerable flow of orders from the East Indies and other foreign markets; but few works have orders in hand for any length of time. There is, however, a growing feeling of confidence in the future, and several works which have been closed for some time are about to be started again. In Welsh the feeling of confidence already referred to is gradually strengthening, and the accounts received from the iron districts generally are decidedly encouraging. The clearances for the Russian markets have increased, and it is probable that before the close of the season the exports to that country will prove larger than was expected. An American account business continues without much change, buyers, upon the whole, evincing a little more freedom in their purchases. With South America and the East Indies there is hardly any trade doing. Continental enquiries are increasing in number, but the actual transactions entered into are of a limited character. The addition to the home demand is fully maintained, with every prospect of a further increase, and a substantial advance in quotations is looked forward to before long. In Swedish iron the demand still continues active, and a very good business has been done. In Scotch pig-iron there has not been much activity, but prices, upon the whole, have remained tolerably firm, the last prices received from Glasgow being 53s. 9d. cash, and 54s. one month.

LEAD.—Lead is now in rather better demand, but prices remain without any alteration.

TIN.—In anticipation of the Dutch sale of Banca, the market has remained rather quiet during the week. Business has been done in Straits at 92L 10s. cash, but has since declined to 92L cash, at which it appears to be tolerably steady. Banca, to some extent, has been sold at 92L on the terms of the ensuing sale, thus bringing it down to the same price as Straits. What effect the sale will have on the market remains to be seen. English is firm at the quotations.

SPELTER remains without any animation, and transactions are very limited. The quotation for parcels on the spot is 20L to 20L 5s.

TIN-PLATES.—The works are fairly employed, and prices firm.

STEEL and QUICKSILVER in moderate demand only.

THE TIN TRADE.—Messrs. Von Dadelson and North (Sept. 4) write—According to the dock returns, published here monthly, the landing of tin in London during the last six months was 1973 tons, and the delivery during that period 2417 tons; but there must be some discrepancy in this, as it would make our present stock 200 tons less than it is officially given, but it shows clearly that the supply has not been equal to our requirement, while Banca has been in excess. The supply of Bilston tin is considerable, but there is no stock of importance (about 200 tons). It goes into consumption as it arrives, and no doubt this accounts for the accumulation of the stock of Banca. Our advices from the Straits do not lead us to anticipate excessive shipments from there, while prices are high and show no profits to importers here. As regards the future range of prices, it is impossible to form a judgment, as so much will depend on the views operators take at the coming sale. We cannot imagine that the Trading Company will again have recourse to a reserve price, seeing how futile its operations have been on the last two occasions, and how entirely it has caused all speculation to cease during the past six months. It is reported that stock is again accumulating in the hands of the Trading Company at Batavia, which would induce us to think that the directors will sell their tin now in Holland at the current market rate, whatever that may be on the day of sale, and we should be inclined to think that whatever the sale price is may be taken as a fair criterion as to the real value of tin for the coming six months. The quantity of tin here and in Holland on Sept. 1 was as follows, compared with three preceding years:—

1868.	1867.	1866.	1865.

<tbl_r cells="

tino, 11-16ths to 13-16ths; St. John del Rey, 20 $\frac{1}{2}$ to 21; Cape Copper, 4 $\frac{1}{2}$ to 5 $\frac{1}{2}$. In British descriptions, East Grenville shares were in demand, and closed 24 to 25; this mine is looking much better. Wheal Grenville, 25s. to 27s. 6d.; West Chiverton, 60 $\frac{1}{2}$ to 61 $\frac{1}{2}$, ex dividend; Chiverton Moor, 6 $\frac{1}{2}$ to 6 $\frac{1}{2}$; Prince of Wales, 36s. 6d. to 37s. 6d.; Glyn Alun, 12s. 6d. to 13s. 6d. (call paid); Great Rhosesmor, 4 $\frac{1}{2}$ to 5; Great Retallack, 3 $\frac{1}{2}$ to 3 $\frac{1}{2}$.

IRISH MINE SHARE MARKET.—As is usual at this season, when so many of the most enterprising speculators absent themselves from business mining shares have not been in great demand, there being nothing new from the mines of stirring interest. The rivalry for the lead in the comparatively insignificant business doing in mining shares has, however, been rather marked between the Wicklow Copper and the Mining Company of Ireland shares, they very nearly alternating in monopolising the attention of buyers, with a slight advance attending, while the rival receded a fraction, until again in favour, to the neglect of the temporary opponent. However, the fluctuations in both these mines were too trifling (from 1s. 3d. to 5s. per share) to require special notice; and we, therefore, confine ourselves to recording that Mining Company of Ireland shares (7s. paid) close this week in moderate favour at 15s. 3s. 9d., and Wicklow Copper shares (2s. 10s. paid) at 12s. 17s. 6d. A few days back we had a transaction in General Mining Company for Ireland shares at 2s., at which price more would be taken. Connor shares are not strongly supported at 4s. per share.

The Carysfort Mining Company (Limited) held a special meeting on the 4th inst., for the purpose of formally confirming a resolution, passed on Aug. 4 last, to voluntarily wind-up the company, which was agreed to "nem. con.", and Mr. Craig appointed the liquidator. The Chairman (Dr. Baxter), in the course of explaining the object of the meeting, stated that "the means at the company's disposal did not warrant their undertaking the expenditure necessary for future efficient working, although there was no doubt that by judicious management the mines would become a paying concern. The duty of the company now was to obtain the best possible price for their property." To attain this object there can be no better course than a sale through the Landed Estates Court, which would invite general and open competition, and give intending purchasers a parliamentary title, always of the greatest possible value to such as intend to seek the co-operation of the public, as would no doubt be the case with anyone acquiring so extensive a mining property as the one of Carysfort, comprising nine or ten distinct mines and quarries, each of which would, in itself, afford sufficient scope for promising mining enterprise. It is this very great extent of mining property, in the absence of any well-defined system of operations, to which we repeatedly alluded while the company was yet in a position to retrieve its position, that the ill-success of the company must be attributed to, and by no means to the want of intrinsic value of any one of the several mines. The company spent some 38,000*l.* in partially opening or examining Ballyntemple Lead Mine, Ballinvallig, Ballinasilligoe, Moneteighe, Cullahullin, Arklow Head, a vein of roofing slate, and indications of sulphureous along the valley of the Aughrim river, &c. That with such scattered operations some 40,000*l.* and much valuable time should have been frittered away, is much less surprising than if it had been crowned with success, unless, contrary to all mining experience, a comparatively mere skimming of the surface could have insured it. We do not point to the past gross mismanagement for the purpose of inflicting pain on any of those who have unwittingly become responsible for it, but simply with a view to extricate Irish mines or Irish mineral properties from the stigma of leading to disappointment and loss, whatever the management might be.

Fortunately, the shareholders need apprehend no disastrous consequences from the winding-up, beyond the losses already provided for by past calls. Their debts are about balanced by a few hundred pounds of arrears of calls, and if the mining lease and plant are not sacrificed to private speculation, but put up for sale in the best market for insuring public competition and an indisputable title, the shareholders may soon receive back some of their former outlay.

The Cwm Dwyfor COPPER MINING COMPANY, with a capital of 10,000*l.*, in shares of 17. each, is in course of formation for working the rich copper veins existing in the property of the New Prince of Wales Slate Company. The ore is a yellow sulphure of copper of high percentage, and the terms upon which the operations are to be carried on will yield a good royalty to the slate company, and at the same time permit the copper company to realise large profits, as machinery will be altogether unnecessary, and the facilities for working are very great. The report of Mr. Thomas Collier upon the property will be found in another column, and the prospectus will be published in next week's Journal.

At Redruth TICKETING, on Thursday, 1155 tons of ore were sold, realising 3687*l.* 3s. The particulars of the sale were:—Average standard, 104*s.* 19*m.*; average produce, 5*s.*; average price per ton, 3*s.* 4*m.*; quantity of fine copper, 65 tons 8 cwt. The following are the particulars of the sales during the past month:—

Date.	Tons.	Standard.	Produce.	Per ton.	Per unit.	Ore copper.
Aug. 13.	2318	£105 14 0	57 <i>s.</i>	£3 9 6	11s. 9 <i>m.</i>	259 0 0
" 20.	3754	105 3 0	6 <i>s.</i>	4 0 0	12 5 <i>m.</i>	62 7 0
" 28.	1622	97 0 0	7 <i>s.</i>	4 18 0	12 5 <i>m.</i>	62 7 0
Sep. 3.	1869	105 5 0	7 <i>s.</i>	4 2 6	12 4 <i>m.</i>	61 18 6
" 10.	1155	104 19 0	5 <i>s.</i>	3 4 0	11 3 <i>m.</i>	56 7 6

Compared with last week's sale, the decline has been in the standard 3*s.* 15*m.*, and in the price per ton of ore about 4*s.* 3*m.* Compared with the corresponding sale of last month, the decline has been in the standard 2*s.* 10*m.*, and in the price per ton of ore about 2*s.* 10*m.*

At Wheal Mary Ann meeting, on Tuesday (Mr. James Dymond in the chair), the accounts for April, May, and June showed a credit balance of 2487*l.* 3s. 2*d.* A dividend of 80*s.* (17*s.* 6*d.* per share) was declared, and 1591*s.* 2*d.* carried to next account. The profit on the workings was 87*l.* 16*s.* 3*d.* [The report of the agents will be found among the Mining Correspondence.]

At Tincroft Mine meeting, on Aug. 31, the accounts for the three months showed a credit balance of 1559*l.* 0*s.* 4*d.* The profit on the three months' working was 1492*l.* 4*s.* A dividend of 1500*l.* (5*s.* per share) was declared, and 9*s.* 0*d.* carried forward to credit of next account. Capt. Teague reported on the various points of operation. The mine, on the whole, never looked better, nor more promising. The total credits for tin and copper ores, deducting the sum credited in previous account, was 6874*l.* 18*s.* 40*d.*

At South Wheal Frances meeting, on Monday (Mr. R. R. Broad in the chair) the accounts for June and July showed a credit balance of 294*l.* 4*s.* 5*d.*, and a loss on the two months' working of 125*l.* 3*s.* 3*d.* Caps. Pascoe and Prisk reported that, although there is no point in the mine of any great value, most of the levels westward are opening tin ground of a low quality. The ground being easy, great progress is made in their development. Should these levels continue productive the time is not far distant when they will be in a position to require 16 additional heads of stamps.

At North Foxdale Mine meeting, on Aug. 27 (Mr. J. Shelley in the chair), it was stated that from the present time, or as soon as they are ready to extend the levels on the vein, the real proving of the mine commences. The report was received and adopted. Details in another column.

At the Don Pedro North del Rey Gold Mining Company extraordinary general meeting, on Sept. 4 (Mr. Henry Haymen in the chair), a quarterly dividend of 3*s.* per share was declared, leaving the sum of 10,10*s.* to be carried forward to the credit of next account. Details in another column.

At the Currawang Copper Mine meeting, held at Sydney, New South Wales, on June 30 (Mr. M. Consett Stephen in the chair), it was stated that the manager (Mr. S. E. Richards) had carried out during the last six months more than could reasonably have been expected. The smelting operations have also proved successful, but the directors, on enquiry, and after mature deliberation, find it to be more beneficial only to regale the ores at the mines, instead of refining them, by which operation quicker profits will be realised. They, therefore, entered into a new contract with the smelters to regale 5000 tons of ore by the end of October next; also to erect additional furnaces at a lower price, and under more favourable conditions, than the former ones, so as to regulate monthly the whole quantity of ores raised (1500 tons) when the third (40 fm.) level shall have been opened. The assets have considerably increased since the last report. Owing to this fact, the directors have been enabled during the past half-year to make financial arrangements which have relieved them from the necessity of making calls. About 2500 tons of ore have been handed over to the smelters, and at grass. Nearly 25 tons of pure copper have already been received, and partly disposed of. The percentage of ores will increase with the operations, which are vigorously proceeding to obtain ores from the lower levels. The board desire to have, with as little delay as possible, the mining and smelting operations in such working order as to raise and regale at least 1500 tons of ore monthly.

The Bank of England return for the week ending on Wednesday evening showed in the ISSUE DEPARTMENT a decrease in the "notes issued" of 112,500*l.*, which is represented by a corresponding decrease in the "coin and bullion" on the other side of the account. In the BANKING DEPARTMENT there is shown an increase in the "public deposits" of 441,510*l.*; in the "seven day and other bills" of 6442*l.*; and in the "rec'd" of 2383*l.*—together 450,355*l.*; and a decrease in the "other deposits" of 163,764*l.*—296,571*l.* Adding thereto, 24,074*l.*, the decrease in the "other securities" on the asset side of the account, gives an increase in the total reserve of 320,645*l.*

Contract for Best British Iron.

BY ORDER OF THE SECRETARY OF STATE FOR INDIA IN COUNCIL.



NOTICE IS HEREBY GIVEN, that the DIRECTOR-GENERAL OF STORES FOR INDIA will be READY on or before Monday, the 14th instant, to RECEIVE PROPOSALS, in writing, sealed up, from such persons as may be willing to SUPPLY—

BEST BRITISH IRON.

And that the conditions of the said contract may be had on application, addressed to the Director-General of Stores, India Office, Westminster, S.W., where the proposals are to be left any time before Two o'clock P.M. of the said 14th day of September, 1868, after which hour no tender will be received.

India Office, Sept. 4, 1868. GERALD C. TALBOT, Director-General.

Aldershot.—Army Contracts—Forage.

COMMISSARIAT, ALDERSHOT, SOUTH CAMP.

TENDERS will be received at this Office until noon, on Friday, the 25th September, from persons who may be willing to enter into CONTRACTS for the SUPPLY OF OATS, HAY, and STRAW, between the 1st November, 1868, and 30th April, 1869—that is, for six months—at Aldershot, and within the command.

Parties may tender for any of the above separately, or for the whole.

OATS, per 100 lbs.

HAY, per ton.

STRAW, per load of 36 trusses of 36 lbs. each.

Also, at the same time and place, TENDERS will be received for the SUPPLY of the following articles, when required in substitution for forage:—

From 1st November, 1868, to 30th April, 1869.

BRAN, per 100 lbs.

OATMEAL, per 100 lbs.

CARROTS, per 112 lbs.

From 1st April, 1869, to 31st October, 1869:—

GREEN FORAGE, per 112 lbs.

The deliveries will be made into the Commissariat Barns or Granaries as required, and the Commissariat will undertake the issues to the troops.

Forms of tender and conditions of contract can be obtained on application at this office, by letter or in person, between the hours of Ten A.M. and Four P.M., where any further information that may be required will be furnished.

R. ROUTH, Deputy Commissary-General.

Contract for Coals for San Paulo de Loando.

CONTRACT DEPARTMENT, ADMIRALTY, SOMERSET HOUSE.



THE COMMISSIONERS for Executing the

Office of Lord High Admiral of the United Kingdom of Great Britain and Ireland, do hereby give notice that on TUESDAY, the 29th instant, at Two o'clock, they will be READY TO TREAT with such persons as may be WILLING to CONTRACT for SUPPLYING and DELIVERING on board Her Majesty's steam-ships and vessels at San Paulo de Loando, all such quantities of

SMOKELESS SOUTH WALES COALS

As may from time to time be ordered under a contract for twelve months certain, from the 1st April, 1869, and afterwards until the expiration of six months' warning.

A form of the tender and conditions of contract may be seen in the lobby of the Storekeeper-General's Department, Admiralty, Somerset House. No tender will be received after Two o'clock on the day of treaty, nor will any be accepted unless the party attends, or an agent for him duly authorised in writing.

Every tender must be addressed to the Secretary of the Admiralty, and bear in the left-hand corner the words "Tender for Coals for San Paulo de Loando," and must also be delivered at the Department of the Storekeeper-General, Admiralty, Somerset House, accompanied by a letter signed by two responsible persons, engaging to become bound with the person tendering in the sum of £500 for the due performance of the contract.

By order, ANTONIO BRADY,

Registrar of Contracts and Public Securities.

Contract Department, Admiralty, Somerset House, Sept. 1, 1868.

40

Sale of Engines

CONTRACT DEPARTMENT, ADMIRALTY, SOMERSET HOUSE.



THE COMMISSIONERS for Executing the

Office of Lord High Admiral of the United Kingdom of Great Britain and Ireland, do hereby give notice that on TUESDAY, the 22nd instant, at Two o'clock, they will be READY TO TREAT with such persons as may be WILLING to CONTRACT for RECEIVING SEALED TENDERS for the

PURCHASE OF THE ENGINES

taken from Her Majesty's ship Osborne, lying in Portsmouth Dockyard.

Persons wishing to become purchasers must apply to the Admiralty-Superintendent at H.M. Dockyard, Portsmouth, for notes of admission to view the engines.

Catalogues and conditions of sale may be obtained here and at Portsmouth Dockyard.

No tender will be received after Two o'clock on the day of treaty, and it will not be necessary for the parties tendering to attend on that day, as the result will be communicated to them in writing.

Every tender must be addressed to the Secretary of the Admiralty, and bear in the left-hand corner the words "Tender for Engines," and must also be delivered at the Department of the Storekeeper-General, Admiralty, Somerset House.

By order, ANTONIO BRADY,

Registrar of Contracts and Public Securities.

Contract Department, Admiralty, Somerset House, Sept. 2, 1868.

40

Contracts for Salt Pork.

CONTRACT DEPARTMENT, ADMIRALTY, SOMERSET HOUSE.



THE COMMISSIONERS for Executing the

Office of Lord High Admiral of the United Kingdom of Great Britain and Ireland, do hereby give notice that on TUESDAY, the 13th October next, at Twelve o'clock at noon, they will be READY TO TREAT with such persons as may be WILLING to CONTRACT for SUPPLYING and DELIVERING into Her Majesty's Victualling Stores at the undermentioned Ports the following quan-

SALT PORK,

all of the cure of the present season, viz.:—

DAFTORD 4800 tierces 4800 barrels.

HAULBOWLINE 1800 1800

Each tierce of pork to contain 75 pieces of 4 lbs. each, and each barrel 50 pieces of 4 lbs. each, instead of the number of pieces formerly contained in the tierces and barrels.

The pork to be delivered into the respective stores as follows, viz.—one-third of each quantity for each place by the 15th day of January, 1869; another third thereof by the 5th day of March, 1869; and the remainder thereof by the 30th day of April, 1869; or any greater portion, or the whole, at any earlier period, if preferred by the party tendering, and to be paid for by bills at three days after date, which will be sent to parties usual.

Their lordships reserve to themselves the power, when the tenders are opened, of contracting either for the whole, or for such part thereof only as they may deem fit, or for a greater quantity, or of not contracting for any, and also an unlimited power of selection in accepting the tenders.

Every tender must specify the name of the person by whom the meat is intended to be cured, the brand of the meat, and the place of cure.

Tenders for pork of the cure of the United States of America will not be admitted.

Persons tendering for more than one port must give a separate tender for each port.

F. N. GISBORNE'S PATENT MECHANICAL
BALANCE-WEIGHT SIGNALS FOR MINES, &c.

THESE SIGNALS supply a want long felt in giving INSTANT COMMUNICATION in MINES at SEVERAL PLACES at the SAME TIME without the aid of electricity, but by a single rod or chain; so that a degree of safety is ensured hitherto unknown.

The price is also very low, and the mechanism so simple that any ordinary mechanic could put it in order if out of adjustment.

The same patent, as applied to ships, has received the approval of the Chief Engineer, Chatham Dockyard (vide Times, Aug. 13, 1868).

SOLE AGENT FOR MINERS:
MR. GEORGE B. JERRAM, ENGINEER, 5, GREAT QUEEN STREET,
WESTMINSTER.

N.B.—Mr. JERRAM is now visiting the different mines with working models.

A LARGE AMOUNT of MONEY being EXPENDED in ADVERTISING in WORTHLESS PUBLICATIONS, C. H. MAY will be HAPPY to AFFORD INFORMATION to ADVERTISERS in the SELECTION of the BEST and MOST INFLUENTIAL.

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Notices to Correspondents.

** Much inconvenience having arisen in consequence of several of the numbers during the past year being out of print, we recommend that the Journal should be filed on receipt: it then forms an accumulating useful work of reference.

SILVER LEAD ORE—"R. A." (Sardinia).—The mode of estimating the value is very simple—the produce of the ore for lead is first calculated, and then so much per ounce extra is added for the silver when in sufficient quantity to pay for separation. The processes for separating have now been made so perfect that the smelters allow for nearly all the silver contained. When the silver occurs in a silver ore proper, of course full deduction for the cost of extraction is made.

PLUMBAGO, COBALT, &c.—"H. R." (Manchester).—A ready sale at remunerative prices for all the metals named could, no doubt, be found by one producing them in the quantities stated; it would be better, however, not to force them into the market without consideration. By advertising that they are for sale, purchases would be found amongst those actually using them, so that the intermediate profits would be secured to the producer.

OILS AND GREASE.—"Old Subscribers" (Richmond, York-shire), had better obtain "Chambers's New Encyclopedia;" "MacCulloch's Dictionary of Commerce;" and the "Trade and Navigation Returns," issued periodically by the Board of Trade.

TIN-PLATES.—"M. R."—The largest size tin-plates usually made by the Gadlys Uchaf Iron and Tin-Plate Company of Aberdare is 14 in. x 20 in.; but larger could be manufactured to order. The manager refers to Messrs. Chivers and Son, Kidwelly, Carmarthen, who make larger plates.

PARKINS.—There was considerable enquiry some months since for "Parkins," which it was generally thought would, for many purposes, be an excellent substitute for hard India-rubber; but I have since heard nothing about it. Can any of your correspondents inform me whether it is still being manufactured, and also whether the manufacture is still protected by patent?—K.O.

Received.—R. P. R. (Wilkes-Barre, U.S.)—W. H. (Norrtelje)—B. R.
SCALE FOR ADVERTISEMENTS.—To avoid the necessity of frequent application, we may state our charge for general advertisements is—for six lines and under, 4s.; per line afterwards, 8d. Average, twelve words per line.

THE MINING JOURNAL,
Railway and Commercial Gazette.

LONDON, SEPTEMBER 12, 1868.

PROTECTION FOR AMERICAN IRON AND STEEL.

The importance to the British ironmaster of the United States market is great. By no commercial legislation outside his own country is he more affected than by that at Washington. Again and again have his prospects become encouraging, or the opposite, according as the advocates of protection in that country have seemed on the point of success in their persistent and renewed efforts to keep his products out of that market, or have failed in those efforts. Upon the authority of a leading American ironmaster, it has been before shown in the *Mining Journal* that the making of iron in the United States has been disastrous to all but very few who have engaged in it, and that the raising or lowering of the price of finished iron at the works in Great Britain means the weal or woe, for the time being, of Pennsylvania. This has been the case hitherto, notwithstanding the high duties on the British product which the proprietors of the mills and forges in the New World have been successful in enforcing. No wonder, therefore, that they should continue in a condition of unrest, and that their representatives in both Houses should be ever devising new means of bringing about a state of undisturbed prosperity.

Upon such an effort the attention of the House of Representatives, when it re-assembles, is to be devoted first in order, and with all the vigour which new or renewed energies can impart. Because of the significance of such a movement to the iron trade of the United Kingdom, we ask prominent attention to it in this country. The trading public have not been unaware that a new Tariff Bill has been before the House, bearing the name of Mr. MOORHEAD; but that to afford time for its discussion, during a time of domestic quiet, it has been put on one side till the new session.

With the effect of the measure upon other departments of industry than those we have indicated we have very little to do, but we are concerned in it so far as it affects the iron and steel trades. The extent to which those manufactures here are threatened to be prejudiced by it may be inferred from the fact that it will add an average duty of nearly 20 per cent. on the chief kinds of metals and metallic products sent into the United States. Because, however, of the specious manner in which the measure has been drawn up this does not at first sight appear.

Upon all descriptions of finished iron, rolled, hammered, or made into shapes, as angle iron, hoops for barrels or baleing, completely or only partly manufactured, or any other form or shape of iron not provided for in the present tariff, excepting round, square, and flat iron; and all descriptions of plate, sheet, polished, and galvanised iron, a specific duty of 2½ cents per lb., in lieu of the duties now imposed is desired to be levied. Whilst it is not clear, as the Bill is drawn up, whether or not the heavier kinds come under the phrase "all descriptions of iron" which are to pay the 2½ cents, it is inferred that railway and merchant bars, rounds, and the like are to be left untouched. All descriptions of iron thinner than No. 5 wire-gauge, and all rounds or squares less than 1-16th in., and all sheet or plate iron less than 10 wire gauge is to bear an addition to the present duty of ½ cent per lb., and galvanised and polished sheet iron of all descriptions is to bear 3½ cents per lb., instead of the present duties. All machinery composed in part of iron or steel, or any other metal, is to pay 55 per cent. *ad valorem*. Wrought-iron nuts or rivets, other than screw-bolts of all descriptions, not exceeding 4 inches in length, wholly or partially finished, is to pay 3½ cents per lb.

Attention is elsewhere being drawn to the great, and in certain cases worse than unprofitable, manufacture of steel by the BESSEMER process. There is reason to conclude that to such a cause is in some part to be attributed the energy which is to be put into this renewed effort at Protective Legislation at Washington. Young companies are understood to be now engaged in the manufacture of steel in America, and certain of them are using the BESSEMER process, by the application of which to the best ores of the country it is claimed

that steel can be made of a quality superior to any produced in Europe. Of this all the consumers are not yet convinced, chief amongst them the Collinsville Company, who are the largest buyers of edge tool steel in the States. They are described as having achieved "almost a monopoly in the sale of matchets in the West Indies and South America," and their axes and picks are alleged to be "driving the English articles out of Australia." This company continues to purchase steel from Sheffield. They will not much longer do so if the makers of American steel can have their way. On steel of all descriptions and qualities the Bill charges, in addition to the rates now levied, 1½ cent per pound, and on steel scraps 1 cent. Heavy steel articles, which have recently begun to be sent to America, are also to be checked. Carriage, car, and locomotive springs will have a duty levied upon them, if the Bill should pass, of no less than 8 cents per pound.

Other manufacturers besides steel have lately been begun in the States, and their encouragement is sought by the Bill. Conspicuous amongst the processes alluded to is the making of iron wire-cloth. This is to be protected by a tax of 2 c. per foot (4 c. if painted), and 35 per cent. *ad valorem*; iron or steel wire-rope, made of wire over 16 wire gauge, is charged by this Bill 6 c. per lb.; if made of wire less than 16 and not more than 25, 7 c.; if made of wire less than 25, 8 c. per lb.; if galvanised, 4 c. more; wire covered with silk, cotton, or other material, will pay 5 c. per lb., in addition to the rates imposed on uncovered wire.

Whatever success may attend Mr. MOORHEAD's Tariff Bill, there seems very little reason to doubt that the trade in iron and hardware with America will be slightly checked from another quarter. Senator MORRILL has shown by the report of a committee, of which he is the Chairman, that the system copied from our own country, and introduced into the States, on the recommendation of Secretary WALKER, by which goods could be consigned to the States either for consumption there, or for re-export, and kept in bond without the payment of duty, until they are taken out, does not work advantageously to the interests of the American treasury. He has, therefore, brought in a Bill, on the recommendation of his committee (otherwise, upon his own recommendation), by which it is intended that on the entry of any goods, the owner or his agent shall declare whether they are for consumption or export, and shall be bound by such declaration; and that on withdrawing any goods for consumption the owner shall pay 6 per cent. interest on the duties for whatever time payment thereof may have been deferred. The committee believe that the entire warehousing system must ultimately be abolished, but they recommend this as an immediate alteration.

Ironmasters and others, who have been accustomed to consign iron to New York on speculation, will regard such a change as Mr. MORRILL's Bill would bring about, as somewhat serious. The change, however, seems inevitable, and they would do well to prepare for it. And all ironmasters who do any business with the States should narrowly watch what is going on there, if they hope to forecast the future with reasonable accuracy.

NOTES ON THE SOUTH STAFFORDSHIRE COAL FIELD—No. I.

CANNOCK AND RUGELEY COLLERY.

The royalty leased from the Marquis of ANGLESEY by the Cannock and Rugeley Colliery Company comprises 3000 acres. At the establishment now in operation two drawing-pits are sunk, each 12 feet diameter, and 122 yards apart from their centres, 200 yards to the deep coal seam and 178 yards to the shallow coal seam, both pits being sunk through the deep coal. A scaffold is fixed in No. 1 pit under the shallow seam. The deep coal is drawn at the No. 2 or downcast shaft, and the shallow coal at the No. 1 or upcast shaft. The pits are lined with 9-in. brickwork from top to bottom, excepting where workable coal seams are cut through. There is no timber in the pits. There are two cages in each pit; each cage carries two tubs on two decks, and runs on three wire-rope guides. These are kept in tension by heavy weights at the bottom, and each guide consists of six wires of 3-16ths of an inch each. The cages have tubular upright frames at the angles; they weigh 13 cwt. each, the weight of coal carried in each tub averages 11½ cwt. standard, and each tub of coal is weighed at the top of the pits.

No. 2 winding-engine has one horizontal cylinder 30-in. diameter, 5 ft. stroke, 40 lbs. pressure—90-horse power. Conical drum in the house, 12 ft. diameter at first lift, increases to 13 ft. No. 1 winding-engine, 26-in. horizontal cylinder, 5 ft. stroke, 40 lbs. pressure. Conical drum, 10 ft. diameter first lift, increases to 11 ft.

The engines are placed between the pits, the house being 35 yards distant from the pit in each case; too far distant, as it causes intervening guide-pulleys to be used, which are detrimental to the durability of the ropes. The wire-ropes are 4½ in. circumference, and are carefully examined every day by the engineer, together with the cages and tackle belonging to them. There are six boilers at work, and two more newly erected and nearly complete, 35 ft. by 5 ft. diameter; they are plain, hemispherical end boilers. The engines and boilers were constructed by Messrs. THORNEWILL and WARHAM, Burton. The head-gear is strong, and supports pulleys of 14 ft. diameter.

DEEP COAL.—Descended to the deep coal, in No. 2 shaft, accompanied by Mr. WILLIAMSON, the colliery manager. The levels—locally termed heads—are driven 622 yards from the pit in south-west direction, and 700 yards in a north-east direction; the latter undulates a little, but there is little variation in the level from the pit to the extremity. The deep coal is 7 ft. 3 in. thick on this side of the pit, all good hard coal: on the south-west side the coal is 6 ft. 6 in. thick; a fault occurs about half-way along this level (is the only one as yet met with), downthrow to south-west 17 ft., which causes a considerable rise towards the pit. There are two lines of road throughout in the levels. At the bottom of the pit arching 12 ft. wide and high is built, about 40 yards in length on each side, and there are two roads to the pit on each side—one for full and one for empty wagons. Another road is driven 560 yards from the pit to the rise in a south-east direction; the gate-roads are all in this direction. The rise is generally about ½ in. per yard, in some parts nearly level; the coal is 7 ft. thick at the extremity of this road. To the north-west, in the direction of the upcast pit, no workings are driven on that side of the levels, except the single communication between the pits. There are 12 gate-roads to the rise or south-east, branching out from the south-west level; these are 40 yards apart. There are two levels or heads driven 50 yards apart, with the coal left between them—one is the main intake level, 9 ft. wide; the other is the rise-head, from which the long work commences, and continued by each gate-road, taking 20 yards on each side, or 40 yards of coal face in all. Four of the gate-roads are usually run into the outbye, one at the rise-head, and the tubs are brought by ponies to this opening communicating with the main level; this is called a station. There are two doors in the opening, and the tubs are taken from this to the pits by horses; this plan saves the use of doors in the other three gate-roads. There are four stations on the south-west side for 12 gate-roads, and four stations on the north-east side for 14 gate-roads. The gate-roads are all driven by lines on one point, so as to maintain them parallel; the main levels are also driven by lines. The roof of the deep coal is strong metal or bind; about 3 ft. of this is ripped down in the gate-roads, which would make a height of about 10 ft. in the roads; part of this, however, is buried underneath, which gives strength to the pillars on either side, and after the settling down of the superincumbent strata the height remains from 5½ to 6 ft., and seldom requires much further enlargement.

Each gate-road or stall is let to two stallmen, who find labour to work and fill the coal from 40 yards of face, to build the pillars on each side of gate-road, an intermediate pillar between the gate-roads, and bring the coals out to the top of each gate-road. There are thus two wastes left between; the stone for the pillar is obtained from the falls in these wastes, and partly from the rippings in the gate-road. In some cases the wastes can be filled up with debris, but this is not often done; they, consequently, form cavities for the lodgment of fire-damp, where the top has fallen, instead of settling down gradually, and consolidating the whole into a mass more or less compact, according to the depth and weight of the superincumbent strata. Small coal is thrown back into the goaf. The holing is made in the bottom of the coal; one row of posts is placed along the face, which are removed as soon as a fall of coal is cleared away; they are then advanced 4 ft. or more, together with the pillar. The coal drawing commences at 6 A.M., and ends at 6 P.M., one hour less for dinner. The

colliers also commence work at 6 A.M. The firemen previous to this examine the pits all through. One gate-road or stall produces 20 tons per day of 2800 lbs.=25 standard tons, so that 26 stalls should produce 650 tons of coal daily. The engine can draw 85 tons per hour, in 10½ hours=892 tons. No timber is left in the gate-roads. Until the pressure has subsided timber is of no avail. Twenty-one horses and ponies are employed in the deep coal. An engine is designed to be placed near the pit to draw three ways, which will dispense with all horse power. The furnace for ventilation is placed 10 yards from the upcast, under a 9-ft. pit, 23 yards up, through shallow coal. A slope-drift from the top of this passes the heated air into the upcast, where it joins the cold air from the shallow coal workings. The furnace bars are 9 ft. long and 9 ft. wide, but practically not more than 5 ft. of length can be covered=45 ft. area of grate; it consumes 21½ standard tons of coal per week=472 lbs. per minute. Cab. ft. p. min. Quantity of air circulating in the Deep Coal workings, three divisions .. 50,000 Ditto ditto Shallow Coal workings, ditto .. 47,000

Total 97,000
Equal 20,550 cubic feet of air per pound of coal consumed. The fuel used is the mixed slack.

SHALLOW COAL.—The levels in the shallow coal seam extend south-west 450 yards, coal 9 feet 3 inches thick; north-east 500 yards, coal 9 feet 5 inches thick; north-west 800 yards, coal 9 feet 5 inches thick. The gate-roads in this seam are driven to the dip in a north-west direction; the dip is about ½ inch per yard. The gate-roads in the shallow coal are extended in an opposite direction, but the system of working is similar in other respects to that of the deep coal. The Hard Top coal of the shallow seam—2 feet 6 inches thick—is left for roof, leaving 6 feet 10 inches of coal obtained in working. The top coal is usually got from the waste, and produces excellent steam coal. There are 17 horses and ponies employed in this seam: engine-power is intended to be substituted for horse-power. Very little fire-damp is produced in either of these seams; the air circulates in each seam in three currents, entering by the levels, and returning by the face of work, being guided into the extremities by two doors in each of the station openings before referred to. The manipulation of the coal on the bank at surface produces five kinds of coal at one siding—large pieces selected, hand-picked, from each seam; cobbles; steam coal from the top of shallow seam; and two kinds of slack. The shallow coal being inferior to the deep coal in point of hardness, they are filled separately. The produce from this colliery is sold by landsale, through the Midland and Southern Counties as house coal, and is conveyed by the Cannock and Rugeley branch, of nearly two miles, to the London and North-Western Railway, near Huddersfield Station; a portion is sent by another branch to the Huddersfield Wharf, on the Birmingham Canal, being conveyed direct from the pits in the tubs, 10 at once, on a truck, to the wharf. Selling price of coal at Huddersfield Wharf—Deep coal, 10s. 6d. per ton; shallow coal, 8s. per ton; hard coal, 7s. per ton. The workings of this colliery have been in operation about two years. The levels are going three turns per day. About 625 standard tons are now raised at both pits daily, but double this quantity could be raised should an increased demand arise. The trade is increasing, and from the superior qualities of the coal it is expected to extend, and be a source of profit to the shareholders.

No water is found in the workings of the mine. A 30-horse pumping-engine on the surface raises water from a pit 80 yards deep, by 9-inch pumps, for the supply of boilers and two locomotives. The engine is a horizontal cylinder, with long connecting rods and T-bob counterbalanced. The present plant at Cannock and Rugeley is calculated to work the shallow and deep coals under 1000 acres, besides two or more inferior seams lying above, and it is yet an open question whether or not any workable seam of coal may exist under the deep coal; this, it is understood, is to be proved at a neighbouring colliery by sinking. There are two pits sunk to the west of the Cannock and Rugeley working pits, on the same royalty, where the inferior seams were sunk to and worked. These pits are at present stopped. The adjoining collieries of Messrs. MACLEAN and Co., on Cannock Chase, are on a most extensive scale; at present they do not work more than one-third of their capabilities. Nos. 2, 3, 4, and 5 plants are in operation, drawing the yard, shallow, and deep coals; and No. 6, drawing Cannel; No. 7, partially sunk, but stopped; and No. 8 now sinking to the shallow and deep seams. The particulars of the operations and mechanical arrangements of the mines we reserve for a future time. There are three collieries at or near Brownhills of minor note, working the same seams, belonging to Mr. HARRISON, Mr. HANBURY, and Mr. FELLOWS respectively. Huddersfield pit has lately been sunk to the shallow and deep coals, the latter said to be 6 ft. thick, and 304 yards deep. The operations in coal have hitherto been confined to the Brooch coal for several years, but unproductive in their results to the proprietor.

THE GAS AND COKE MANUFACTURE OF LONDON—No. II.

In fixing on a site for gasworks, it is desirable to have them below the mean level of the streets, and to have facility of access for the delivery of coal, and facilities for the removal of residual products, coke, tar, ammonia, lime, &c. The gasworks in London are usually limited in space; this causes the retort-beds to be built to a greater height than is desirable, frequently in five tiers, or 10 retorts to each furnace, which are inconvenient to charge, and when one is out of repair the other nine are stopped from working. Coke is now generally used to heat the retorts, which is economical, and greatly in favour of not polluting the atmosphere in the locality. The illuminating power of gas depends greatly on the degree of heat imparted to the coal in the process of its decomposition in the retorts; too much heat, or too long continuance, give large production, but deficient in illuminating power. By a careful management of the process the illuminating power of the best coal may be made equal to that of Cannel. The condensable matters—tar, ammonia, and aqueous vapour—should be separated perfectly from the gas in passing through the scrubbers, in order to give the absorbing materials their full effect in the subsequent purification; that is, alkalies or lime for the absorption of carbonic acid and sulphur, oxide of iron for sulphur, and water for ammonia, and it would, no doubt, have a beneficial effect to extend the purifying appliances, so as to eliminate completely the deleterious substances in mixture with the gas. The sizes of the mains are determined by the amount of lights to be supplied to a given district; more properly speaking, they should depend on the probable requirements of a district. Consequent on rapid increase of most of those in London, the mains first laid down have been found insufficient, and have frequently been replaced by larger ones.

ST. PANCRAS.—The Imperial Gas Company's works at St. Pancras stand on about 8 acres of ground. There are 662 fire-clay retorts, from 17 to 20 feet long, exclusive of the cast-

=420 ft. The water overflows into the well from the chalk. There are two table-engines near the top of this well, one of which works six pumps in the well, the water being forced up in one main. The other engine works six pumps for pumping tar and ammoniacal liquor from tanks into barges. Another small engine pumps these liquids into the tanks.

There are 10 gasholders, which will store 4,360,000 cubic feet of gas.

SIZE AND CAPACITY OF ST. PANCRAS GASHOLDERS.					
No.	Ft. in diam.	Ft. deep.	Contains p. ft.	Total cubic feet.	
1	85	34	5,674	192,916	
2	63	24	3,118	74,832	
3	146 6	25	10,276	256,840	
Top lift	3	115 6	25	10,481	262,025
Bottom ditto.	3	50	17	1,962	33,405
4	100	38	7,850	298,300	
5	134 6	25	14,189	354,725	
Top lift	8	135 6	25	14,414	360,350
Bottom ditto.	9	120	45	11,310	497,640
10	142	64	16,833	854,982	
11	181	64	13,476	727,704	
12	103	64	8,330	449,820	
Total.....				4,363,539	feet.

The largest consumption of gas in one day last year was 4,769,000 cubic feet. The quality of gas is tried daily by a photometer. Not more than 20 grains of sulphur are allowed in 100 cubic feet of gas, and the test for sulphur (acetate of lead) is frequently tried at each purifier. The best test for carbonic acid is lime water, and this, the most deleterious of all impurities in impairing illuminating power, should be effectually removed. The pressure of gas at the valve-house varies from 8-10ths of an inch in the day to 3 inches at nights in the several mains for distribution.

SHOREDITCH.—The Imperial Gas Company's works at Shoreditch stand on seven acres of ground. There are five retort houses, containing 646 retorts; 216 of these are at present in operation. They are arranged in three tiers and five tiers. Some of the former are now being taken out and replaced by others built in five tiers, as the works cannot be extended in a lateral direction; this plan is resorted to to increase the make of gas. The retorts are all fire-clay, D-shaped. Each retort is composed of three 7-ft. lengths, 34 inches thick, luted together, and fitted with cast-iron mouth-pieces; they thus form a working length of 20 ft., and charged each with 5 cwt. of coal. The coal used is Dean's Primrose, Pelaw Main, Usworth, and Monkwearmouth, mixed with 3 per cent. of Cannel. The coal is hoisted from the Regent's Canal to the high level (25 feet) by a steam-engine, whence it is conveyed and discharged into the various coal stores by hopper trams. A well is sunk through chalk to the depth of 350 ft.; three pumps in the well force the water up in one main. There are three pumps for the tar, and three for ammoniacal liquor, and two for the drainage of the yard; these are all driven by two table-engines of 18-horse power each. There are three exhausters, 4 ft. in diameter, 3 ft. 8 in. wide, to pass 140,000 cubic feet per hour, at 60 revolutions, each driven by a 20-horse power trunk-engine; one exhauster to pass 100,000 cubic feet per hour, driven by a 15-horse power trunk-engine. The exhaust pressure from the retorts is 1 in. of water, and the pressure required to force gas through the condensers, scrubbers, and purifiers into gas-holders is 21 inches average. The condenser consists of 20 single pipes, about 24 inches in diameter; from thence gas is forced through two scrubbers, about 22 ft. in diameter, having five tiers of sieves, on which small coke is laid, to intercept any tar with which the gas may still be impregnated, and which would retard its subsequent purification. Water is supplied at the top, which absorbs any ammonia that may still be unseparated. From the scrubbers the gas is passed into two wet lime purifiers, about 22 ft. in diameter. Fresh portions of the mixture are constantly exposed to the gas by mechanical means, and the carbonic acid is thus separated. From these the gas is forced through oxide of iron purifiers; there are nine of these, oblong in shape, each 25 ft. by 18 ft., has five tiers of sieves on which the oxide of iron is laid, and the gas is passed through certain number of these, so that the sulphur in the gas should be separated most completely. There is, lastly, the dry lime purifier, of the same dimensions as the others, with three tiers of sieves, whereby the remainder of carbonic acid and sulphur should be removed. It has been observed that dry lime is to be preferred to wet lime, on account of the water in wet lime having an affinity for olefiant gas, which would weaken its illuminating power. The gas now passes into gas-holders, of which there are eight—

	Diameter, feet.	Height, feet.	Working capacity.
At Bethnal-green	1.	199 1/2	80
"	2.	128	68
"	3.	124	50
At Shoreditch	4.	105	34
"	5.	85	27
"	6.	50	18
"	7.	50	18
"	8.	50	18
Total			4,806,000

These gasholders have no counter-balance, acting with their weight on the gas forced through the mains, and to a certain extent regulate the pressure. The gas from the holders is brought to one point at the valve-house, and distributed from thence through different mains as follows:—

Inches in diameter. Day pressure.

1. Dog-row main	12	1 inch of water.
2. Bethnal-green main	12	1 "
3. Old Islington main	12	1 "
4. Old Hackney main	12	1 "
5. New Islington main	12	1 "
6. Holloway main	24	1/2 "

The night pressure varies at every hour, and ranges from 8-10ths of an inch to 4 inches of water column. The pressure of five of the mains is regulated by valves. There is another 24-in. main for the Holloway district, not passing through the valve-house. The pressure on each of the Holloway mains is regulated by a governor, by which the pressure is made uniform. The supply is regulated to the demand. If an increase in the influx of gas from the holders takes place beyond what is required in the mains, the opening for the outlet of gas is reduced, the pressure being always maintained above that at the governor, and that required in the mains.

The illuminating power of the gas is tested by Sugg's photometer: 5 cubic feet of gas per hour should be equal to the power of 12 sperm candles of 120 grains each.

The coke made at Shoreditch is sold at 8s. per ton, the breeze 1s., affording a cheap and clean fuel for the district. It is used by founders for smelting, and for various purposes. These works are remarkable for the order and cleanliness everywhere apparent in the arrangements, and for the absence of anything that can be obnoxious to the neighbourhood.

COLLIERY ACCIDENTS.

[FROM A CORRESPONDENT.]

At a time when there has been comparative freedom from colliery accidents it may be considered inopportune to make this subject prominent, but we think the reverse to this, and that the present is the time to take measures to prevent these accidents. On the occurrence of any extensive disaster in coal mines the current of public opinion sets in so strongly that there is quite an inundation of propositions and suggestions for their prevention. With all due deference to public opinion, those propositions, generally emanating from persons without practical acquaintance with the subject, are worthless in themselves, but have been one means of directing attention to those matters, and causing parliamentary enquiries to be made, thus furnishing a large amount of information on the subject, and in this way it possesses great power.

It has been maintained in this Journal that the three primary safeguards are—efficient ventilation at all points in a mine, a strict observance of the colliery rules, and an improved safety-lamp. On the observance of these principles coal mines would be rendered comparatively safe, and the miners exposed to less danger than pedestrains travelling in the great thoroughfares of this City.

After all the evidence given before parliamentary committees, scientific investigations, and practical improvements resulting in part from them, we find gross carelessness and inattention to colliery rules still allowed to be practised. In the recent explosion and loss of life from after-damp at Hindley-green Colliery, near Wigan, the principles of colliery management, indicated above, seem to have been entirely disregarded; without the observance of which it is vain to ex-

pect any immunity from those calamities with which the coal mines in certain districts of this country have been visited of late years. Had the colliery been on a more extensive scale the damage and loss of life would have been proportionately greater. In every well-regulated colliery a healthy degree of ventilation is maintained, even if no fire-damp be produced; and the examination of all places by authorised deputies or firemen, before workmen enter them, is an essential part of any system of colliery regulations. A disregard of these regulations should be visited with punishment to the offenders, and as a warning to others who may be disposed to practise their principles the heedless and unnecessary exposure to danger of the miners' lives.

In connection with this subject, and the prevention of colliery accidents, we should be glad to see introduced into some coal mines a greater concentration of operatives in the working places; we should double the number of men in the workings in a given area. The benefit from this would be—less area of workings to ventilate, fewer doors, less timber and rails to uphold, and much diminished danger from falls of roof, as the coal being more quickly removed the roof is fresh and stronger than it would be with a tardy removal of coal.

This involves no change of system or hours of working, only an agreement with the men to work together. It is practised to a great degree in the Midland Counties, and its adoption in the mines of South Wales and other districts would allow great advantages to be gained—increased safety to the miners, and security from explosions and falls of roof.

THE EXPORT COAL TRADE.—The total quantity of coal exported from the United Kingdom in July amounted to 1,041,145 tons, as compared with 925,031 tons in July, 1867, and 870,092 tons in July, 1866. The decline observable in the exports of coal to France still continues, the total shipments to that country in July having been 169,822 tons, as compared with 192,012 tons in July, 1867, and 155,135 tons in July, 1866. On the other hand, a very considerable increase was observed in July in the exports made of our coal to Russia, Sweden, Denmark, and Prussia. The exports also showed some progress as regards Spain, Italy, and Brazil; but they remained stationary as regards the United States, and fell materially as regards British India. The aggregate shipments of coal from the United Kingdom, to July 31 this year, amounted to 6,244,031 tons, as compared with 5,689,380 tons to the corresponding date of 1867, and 5,613,040 tons to the corresponding date of 1866. In these totals the exports to France figured for 1,134,324 tons, 1,228,510 tons, and 1,074,124 tons respectively. The value of the coal exported in July was 511,487, as compared with 478,500 in July, 1867, and 437,236 in July, 1866; and in the seven months ending July 31 this year, 3,097,432, as compared with 2,941,629 in 1867, and 2,853,417 in 1866 (corresponding periods).

THE TIN TRADE.—The general opinion being that the quantity of tin to be offered at the forthcoming Dutch Trading Company's sale is considerably more than will meet the requirements of the ensuing six months, the excitement on the Amsterdam market has been intense, and the tendency is decidedly downward; this, however, is scarcely to be regretted, since it may lead to the removal of the uncertainty which ever since the withdrawal of the tin at the spring sale has had such a depressing effect both in England and on the Continent. The total deliveries of Banca tin during the last six months have been 2200 tons, and the stock at present on hand is about 5458 tons, which, at first sight, appears rather unfavourable. But it should be considered that at the corresponding period of last year the total stock stood at about 6105 tons; so that this difference of 647 tons in some measure compensates for the extra quantity now offering. The forthcoming sale is equal to about 2890 tons, and there can be no question that it would be more advantageous to the Trading Company, to the consumer, and to rival producers if the whole of this were distributed through the market, even at the price of 48 fl. The mere fact of a dead weight of tin, equal to three or four months' aggregate consumption, being ready, at the will of a single holder, to fall upon the market at any moment leads consumers to linger on, in the hope that the patience of that holder will be exhausted, and that a general decline in price will result, so that they not only buy from hand to mouth, but reduce their consumption to the lowest possible limit; whilst the holder, by contracting the consumption, gets daily more involved. It is confidently hoped that the Trading Company will have no reserve on the 30th inst., and that thereafter the rise in price will be gradual and permanent.

NEW OVERLAND ROUTE TO INDIA.—The announcement of the opening of the new line of railway between Suez and Alexandria via Zagazig which took place on Sept. 8, will be received with general satisfaction by all connected with India, since not only will passengers henceforth perform the journey between Alexandria and Suez in 10 hours including stoppages, but, owing to the more favourable position of the line, the difficulty of maintaining it in efficient working order will be materially lessened. The length of the line from Zagazig to Suez is about 85 miles, and as the Cairo and Suez line is to be abandoned, the whole of the working stock will be available for the new line, to which the rails and iron sleepers will likewise be transferred. Compared with the Cairo route the difference in speed by the Zagazig route will be considerable, owing to the heavy gradients on the old line being avoided, whilst even these passengers who desire to visit Cairo will lose but little time, since it will only involve a run of 28 miles from the Benha junction and back, which will be compensated for by the greater speed on the main line.

GOLD IN NATAL.—The latest advices from Natal are of the most encouraging character—Moselekate has virtually recognised the sovereignty of Matjen over the Victoria gold fields, by declaring, as his southern boundary, the N'khuezi stream, which is 50 miles to the north of the Tatin. This important declaration has since been followed by another equally gratifying—Matjen seeks to become British subject, and has caused the British flag to be hoisted in his territory. The Natalians consider it a great hardship that the power of their immediate ruler is so contracted, and that the officer with whom rests the power of dealing with the independent tribes around them, resides at Capetown—the extreme end of Africa—1000 miles away from any probable scene of serious action. Natal is more deeply interested in the affairs of the native tribes than any other part of British South Africa, and for this reason, if for no other—the Natalians feel that the maintenance of Her Majesty's authority and prestige demand, as one of the necessary changes of the time, that the Governor of Natal shall have power to deal with the native tribes around the colony, and beyond it to the northward, in such way as he thinks fit. With regard to the actual distance to the gold fields from Natal, the two shortest routes are 760 and 763 miles respectively—Mauch's station being at that distance from Natal, and between the 22° and 23° of south latitude. It appears that the route by Ladismith, Newcastle, and Wakerstroom, to Heidelberg, is three miles shorter than by the Mooi and Bushman's rivers, Tugela, and Harrismith; and from Heidelberg to the gold location is 336 miles. The 220 miles from Harrismith to Heidelberg is said to be well supplied with grass, and herds of game are to be found all along in abundance, so that the Tugela route would appear to be entitled to the preference. Between Heidelberg and the Tatin there is a few hours' trek through the "fly," which, however, may be ridden at night without injury to the cattle—the journey occupies about two months. Captain Black's letter of May 23, in which he states that although they had then found very little gold (about 3 ozs. of fine dust), he cherished the hope of finding it in payable quantities, having reached Natal before the end of July. He states that game is very scarce, and very wild. Two Englishmen, appointed by Matjen, are issuing licenses to dig at 1/- per head for six months. A piece of Natal quartz has just been assayed by Messrs. Johnson and Sons, of Basinghall-street, assayors to the Bank of England, the Royal Mint, &c., and found to contain at the rate of 1·185 ozs. of gold and 60 ozs. of silver in the ton of 20 cwt. The stone to which this assay refers was received by the last mail by Messrs. Maynard Brothers and Co., of Pancras-lane, from Mr. A. W. Evans, of Port Natal. In the copy of the assay ticket which Messrs. Maynard have forwarded us the proportion of gold is stated at 1185 ounces, which is probably an error—arising either from the omission of the decimal point or from the small quantity (65 grains) of the quartz tested. It is right, however, to add that Messrs. Maynard

accept the 1185 as correct, observing "it will be seen that the proportion of gold is equal to about 1 cwt. to the ton of quartz, giving a value of nearly 4500/- per ton, at 37. 16s. per ounce."

THE GOLD FIELDS OF NATAL, AND THEIR DEVELOPMENT WITH BRITISH CAPITAL.—The confirmatory evidence of the importance of the discoveries of gold in Natal received by every mail leaves no doubt that the district will speedily be recognised as a field for the employment of British capital, and there can be no question that those who are foremost in occupying it will be in a position to make the best selection. With this view, Messrs. Wm. Hannam and Co., of West Strand and Manchester, have organised the NATAL GOLD EXPLORATION FUND, and have made arrangements for reaping the advantage to accrue from immediate action under the most favourable circumstances. Mr. George Hannam, who has recently returned from the gold mines on the Pacific Coast of the United States, and who is a practical assayer of the precious metals, will, accompanied by an experienced mining engineer, proceed forthwith to select and make the necessary monetary arrangements for the purchase of as large a tract of land as may be procurable upon reasonable terms. The expedition will be furnished with all suitable machinery and appliances for exploratory purposes, and a staff of picked miners, with machinery, will be dispatched as soon as practicable, in order that regular mining operations shall be commenced without delay. More complete details of the project will appear in next week's *Mining Journal*.

REPORT FROM NORTHUMBERLAND AND DURHAM.

SEPT. 10.—The Coal and Coke Trades continue to improve slowly, but there is certainly more life and energy observable in most of the staple trades of the district. The Iron Shipbuilding Trade has improved considerably, and most other branches are busier. At the ordinary weekly market, held at Middlesborough, on Tuesday, there was a good attendance. Makers of manufactured iron report that there is a visible improvement in this department, which gives promise of being continued. The Pig-Iron Trade has not changed much, the only difference being a slight increase in stocks. The market altogether gives signs of increased firmness, and makers contemplate a rise in prices before many more orders go out. Shipments to Scotland and the Continent continue steadily to go on, and orders from the ports are not scarce. Foundries are pretty well supplied with orders, a result which follows upon the increased demand for manufactured iron. The official quotations have not undergone any change, and remain at—No. 1, 47s.; No. 3, 43s.; No. 4, 42s., f.o.b. on the Tees. The coal and coke trades are not in a forward state, although there is no reason to be dissatisfied when the results of some months back are considered.

The Consett Iron Company's annual meeting was held on Saturday, and there was a numerous attendance. The chair was occupied by Mr. John Henderson, M.P. The report shows a profit for the year ending June 30 of 23,445/- 17s. 11d., as compared with 28,401/- 7s. 10d. for the previous year, but this apparent diminution is more than accounted for by the special expenditure on improvements and additions charged to revenue; those amounted in the year just ended to 14,963/- 11s. 8d., as compared with 870/- 18s. 5d. in the year preceding. The directors recommend the payment of a dividend of 5s. 8d. per share (both old and new), being like the interim dividend, at the rate of 7½ per cent. per annum, clear of income tax. This would absorb 13,033/- 6s.

ters to occupy their attention. Yesterday a meeting of miners was held in the Moulders' Hall, to consider the treatment the men had received who had been brought from Staffordshire to the Govan Colliery, to take the place of those on strike. These men number 100, and came under written obligation to work "continuously for one year," with the option of a break at six months, the men giving one month's notice, and paying back any sum, or sums, expended in bringing them down from England. These English colliers had scarcely begun work when they were tampered with, and at a meeting held yesterday they requested as much money as would pay their passages back to Staffordshire, and they would immediately leave. The meeting was adjourned till to-day, to see and "raise the wind" to send the recrants home, if they are not arrested for breach of contract. This is the second batch of English colliers who have decamped shortly after their arrival at the Govan Colliery, through the influence of intrigues for the Union. Surely such a state of things should not be longer tolerated, without the interposition of the strong arm of the law. The Union men have even gone further than this. On Monday night the houses of three non-Unionists, residing near Shawfield Toll, were attacked, the windows smashed, and the furniture completely destroyed. The county constabulary are endeavouring to find out the perpetrators, but these dastardly attacks are generally done in such a way as to effectually conceal the guilty party. If several of these men who now wish to escape from their engagements were arrested, and examined before a commission, in all probability a state of social turpitude would be revealed which would prove the inherent baseness of Trades Unions, whose good features, if any, are more than counterbalanced by the demoralisation which becomes systematised, and with which the men become familiar, in carrying on strikes. It will be a pity if the Union proves itself so strong that these things can be done with impunity.

Shipbuilding on the Clyde keeps steadily progressing, and we are pleased to learn that the Admiralty has invited tenders for the construction of two iron-clads from Clyde builders. As these contracts will involve an estimated expenditure of nearly 500,000*l.*, an effort will, no doubt, be made to secure them here. We have all the appliances at command; and as to constructive ability and mechanical skill, we have no fear of being out-rivaled by builders over the wide world. An iron screw steamer, of 460 tons b.m., has been launched for the Liverpool and Mediterranean trade. She is named the Villareal, and is the property of Capt. Lister, of Valencia. Another screw steamer, of 3000 tons, was launched for J. A. Dunkerley and Co., Hull, named the Ganges; she is 265 ft. long, 33 ft. broad, and 17 ft. deep; her engines will be direct-acting inverted cylinders of 44 in., 36-in. stroke.

There is a report that Mr. G. Baird, of Stichil (and Gartsherrie), will contest Roxburghshire in the Conservative interest against Sir W. Scott, Liberal.

I observe from last week's *Mining Journal* that Mr. James Iliffe—I cannot help again remarking, a name quite unknown here as an authority on the Scotch iron trade—charges your Correspondent with quibbling, prevarication, &c., in strictures which he found it his duty to make on that gentleman's remarks on the Scotch Pig-Iron Trade, in the *Journal* of the 1st ultimo. I can assure Mr. Iliffe that it is an easy matter to fabricate charges; but as Pascal told the Jesuits, two centuries ago—"Fathers, accusation is one thing—conviction another, and a very different thing;" so would I remind Mr. Iliffe that charges should be supported by facts, if they are expected to produce conviction. I wonder that it did not strike Mr. Iliffe that his letter was simply a bundle of assertions, unsupported by any data that went to prove that the Shotts Iron Company could not make iron at present prices, and that that was the reason why their shares were at a discount. If he had been familiar with his subject, he would have known that the shares of that company were rising, just because they could *indexata*, make iron at a profit. But Mr. Iliffe took his information from the "printed share list." Was it because he was ignorant of the facts relating to the value of the shares of the company about whom he was writing? With regard to my alleged quibbling about the importation of Cumberland ore, let Mr. Iliffe point it out, and I shall be happy to return to the subject. Having again re-read my remarks, to discover the personalities they were said to contain, I have failed to discover any, beyond the allusion to Mr. Iliffe not being known in the trade here; and I may also remark that on further enquiry, those in the trade whom I had the opportunity of consulting, regarded the signature as a *nom de plume* of one whose real signature was quite unknown, and of no authority.

REPORT FROM DERBYSHIRE AND YORKSHIRE.

SEPT. 10.—There is little or no alteration in the Iron Trade of Derbyshire, and although a large quantity of pig-iron continues to be turned out yet the demand for merchant iron generally is by no means good. Still, most of the establishments keep their men fairly going considering the quietness which has so long and which still prevails in nearly all branches. The demand for Coal is better than it has been, and a considerable improvement may now be looked for, seeing that merchants in most instances have kept their stocks down, owing to the excessive heat which has prevailed up to a comparatively recent period. One of the best indications of increased business is the fact that the railway companies are now carrying much larger tonnage to London and other places than they have done for many months past, and several of the principal collieries in Derbyshire are amongst those who have assisted in causing the increase. Clay Cross, from which more coal goes to London than from almost any other place, sent there during August no less than 25,582 tons, showing a considerable increase over several previous months, but nearly 4000 tons less than for the same period of last year. Staveley also sent 5920 tons, Riddings 873, and Eckington 8111 tons. There is a moderate business for the season being done in gas coal and nits to the Midland Counties, whilst the tonnage going into the West of England is also on the increase. There is a fair demand for coke, and the quantity made meets with a rather ready sale, so that in no parts of the district are there any stocks to be seen.

Sinking operations are being actively pushed forward in various parts of the district, whilst on the line of the new railway to Sheffield collieries are springing up in all directions, so that in Derbyshire the minerals are being developed to a much greater extent than in, probably, any other part of England.

The improvement in the several branches of the Sheffield trade, to which allusion has been made during the last two or three weeks, still prevails, and there are some considerable orders in hand for various sorts of heavy steel goods. Armour-plate rollers are also busier than they have been; and makers of rails and other railway materials are kept well going. In some of the lighter departments business is rather quiet, but everything points to a better state of things, and the prospect of a moderately good winter trade. In the Rotherham district the ironworks are much busier than they have been for some time, there being a very good demand for railway materials, tyres, axles, &c., and most of the mills are doing well, whilst the puddlers are more active than they have been. The foundries also are doing more, there being a better enquiry for stove-grates and general castings. The Milton and Elsecar Works are in full operation, there being no falling off in the steady good business which has characterised the extensive establishments of the Messrs. Dawes for a long time past. Rails, sheets, and plates continue in good request, whilst there are some moderately good orders in hand for colliery and other castings. The Bessemer Steel Works at Penistone are now in full activity, turning out large quantities of rails and other goods.

There is little improvement to be noticed in the South Yorkshire coal trade, and there is now every prospect, so far as the house coal trade is concerned, that we have seen the worst, and that as the season advances the demand will largely increase. The returns of the coal carried by railway into London for August are the most satisfactory that have been issued for many months past, although they show that over 30,000 tons less was carried than for the same month of 1867. There is considerably more doing in Silestones, both in household qualities and in gas nuts, and nearly 17,000 tons of the former were forwarded to the metropolis last month, much larger quantity than was sent of the Barnsley seam. Steam coal continues in fair request for Grimsby and Hull for exportation to the North of Europe, efforts being made to keep up the tonnage, in anticipation of the stoppage of the trade by the closing of the Baltic ports for the winter. The business doing with Lancashire by the Manchester, Sheffield, and Lincolnshire Railway by no means good, and the low prices which coalmasters were obliged to accept in the early part of the summer still remain in force. There is no falling off in the demand for coke, which continues good, owing to the local furnaces, as well as those in Lincolnshire and Derbyshire, continuing in blast. Sinking operations are taking place in Barnsley and other parts of the district.

In connection with the late demonstration of colliers at Whitley Wood Hall, near Sheffield, it is gratifying to state that everything passed over in the most orderly manner, and that of the 9000 men who came to Sheffield from a distance, not one conducted himself in a manner to call for the intervention of the police, whilst not one was taken up for drunkenness, or on any other charge. It was said that the respectable appearance of the South Yorkshire colliers was such as to rather surprise, not only the inhabitants of Sheffield, but also Mr. Neate, M.P., and the other gentlemen who took part in the proceedings.

For something like 100 years a fire has been burning in the disused workings of the Bank Pit Colliery at Parkgate, and on more than one occasion it has threatened to break through into the workings of the collieries belonging to Earl Fitzwilliam. About 20 years ago this danger was imminent, and a thick bank wall was erected to avert it. During the recent dry weather the ground in the neighbourhood has cracked to a very considerable extent, and it is supposed a current of air has found its way into the workings, causing the fire to spread. The danger of its breaking through into the Earl's collieries has again presented itself, and under the direction of Mr. Cooper, the manager, steps are being taken to prevent it. The fire extends over many acres of workings.

SOUTH LANCASHIRE COLLIES' DEMONSTRATION AT WIGAN.—The miners connected with the various lodges of the Miners' Provident Benefit Society in Wigan and the South Lancashire district celebrated their anniver-

sary in usual manner. On Monday a procession took place in the forenoon, and afterwards a public meeting was held in the Pony's Well Fields. The number of miners present was not so large as on previous occasions, and this is attributable principally to the late strike, which is said to have inflicted much injury on the society.—Mr. G. Pickard, of Haydock, presided, and the first speaker was Mr. Aspinall, of West Houghton, miners' agent, who stated that the strike cost the association 10,000*l.*, and under the regulations of the society the members would have been entitled to a further sum of 10,000*l.* had they pressed it. By resolution of the district meetings the men had abandoned the claims upon the funds.—Mr. W. Pickard, the principal agent of the district, said, in the course of a lengthy address, that it was computed the late strike altogether had cost the county not less than 250,000*l.*, and that if his advice at the commencement of the dispute had been followed the men would have gone in at the reduction, and worked half-a-day instead of a whole one. Referring to the recent colliery explosion at Hindley, he severely censured the conduct of the managers, and he urged the necessity of combining, in order to obtain such an alteration of the laws as to secure the more efficient inspection of mines, and the more severe punishment of offending proprietors and colliers.

REPORT FROM MONMOUTH AND SOUTH WALES.

SEPT. 10.—There are unmistakable signs of the Iron Trade of this district gradually improving, and the more buoyant feeling which lately began to manifest itself is steadily strengthened as the season advances. The hands employed at the leading establishments are, for the most part, working full time, the rail mills being tolerably well employed, which has not been the case for several months past. There is a steady increase in the demand for rails, chiefly for the foreign markets, and prices are also experiencing an improvement; and should the orders anticipated from the Continent come forward, the present advance will, in all probability, be maintained. The shipments to America during the past week have slightly decreased, and present prices do not tempt buyers to enter freely into transactions. The exports to the United States during the past month amounted to 9906 tons, of which New York took 5088 tons. There are a few orders remaining on makers' books for the American markets and British colonies, for which places there are some from freights now in the market. Several vessels and steamers are being laden with rails at the local ports for Russia, and will be speedily followed by others for the same country. It is now apparent the exports to the Muscovite empire during the remainder of the season will be in excess of those at the commencement, and during the past month the quantity of rails shipped for the Russian ports amounted to 5966 tons, as compared with 2475 tons in the previous month. At the commencement of the Russian navigation season it was stated that the wants of the empire would be somewhat extensive, and manufacturers in this district were sanguine of obtaining a fair share of the orders. It was not, however, until the middle of last month that Russian orders came into the market to any extent, and now several of the makers are employed in supplying the demand before the close of the shipping season. Enquiries from the Continent are increasing, but the actual transactions entered into are of a limited character. Home buyers have not as yet entered into such large transactions as anticipated, yet the slight addition in the demand is fully maintained. The increased demand for bars has caused a slight advance in quotations, while, at the same time, ironmasters in this district are improving their quality. This, together with the facilities they possess for foreign shipment, give them a great advantage over other makers in less favoured districts. The improvement which set in in the iron shipbuilding trade a few weeks ago caused a slight increase in the demand for plates, but during the past week this branch of the trade has been less buoyant. Pig-iron makers, considering the time of year, are doing a fair amount of business, but prices are not so firm as they have lately been. There are a sufficient number of orders on the books of tin-plate makers to keep the mills tolerably well employed, the demand for coke being especially good.

The Steam Coal Trade has fallen into a state of comparative dullness, owing to the strong gales which recently prevailed, and which has prevented the arrival of vessels at the local ports. The demand for steam coal is, however, gradually increasing, but merchants and shippers experience a greater difficulty in obtaining vessels of suitable tonnage than has been known for several months past. The demand from the Baltic ports has slightly decreased, which is rather unusual at this season of the year, therefore a revival is confidently expected before many days have elapsed. There is a good Government contract in the market, and there are several orders on merchants' books, chiefly for the mail packet stations and Mediterranean ports. To the other foreign markets about an average quantity is being sent. For house qualities the demand has slightly increased since the change in the weather took place, but the shipments coastwise must be doubled before this branch of the trade will enable the hands to be fully employed.

A question of considerable moment to the commercial community of South Wales and the large manufacturing districts of the North of England is now occupying the public mind. It is well known that Swansea is the seat of the great copper smelting establishments of the kingdom, and in its immediate vicinity are large iron works, tin-plate works, and collieries, whilst Liverpool, Manchester, Birmingham, and other important towns in the North of England are the large consuming towns for the various manufactured metals. A direct and expeditious postal communication between the two districts is, therefore, of great importance, and for several years past the merchants and traders of the district have been agitating for better than now exists. The mails are now conveyed over the circuitous route of the Great Western system, and the consequence is that answering letters per return of post can scarcely ever be done, only about one hour and a half elapsing between the delivery of letters and the closing of the return mail bags. Up to the present time the answer of the Postmaster-General to the representations made to him has been to the effect that a better route could not be substituted; but the recent opening of the Central Wales Railway has opened up a route lessening the distance between South Wales and the North by between 50 and 60 miles; and it is in favour of the establishment of the new route that the present agitation is directed. At a meeting of the Swansea Company, on Wednesday, a memorial was presented from the proprietors of the various copper works, iron makers, colliery proprietors, and merchants and traders generally, asking the Council to adopt the necessary steps to lay the advantages of the new route before the Post Office authorities, and the Mayor (a large colliery proprietor), in moving that the prayer of the memorial be granted, said that the new route would afford them between five and six hours more time for answering letters than they now had. A committee was appointed to take the necessary steps in the matter, and it was stated that the subject was felt to be one of such great importance to the commercial communities of both districts that similar steps would be adopted in all the large towns, so as to bring pressure upon the Government, and induce them to adopt the new and more expeditious route. We trust the efforts will be successful.

Accidents frequently happen to the little boys employed in the collieries, by reason of their being unable to get out of the way of horses and trams, and in a great many cases the little sufferers are found to be under 10 years of age. The question then occurs, how boys of that age get into the works? The answer is, that men will get them in, legally or illegally, for the purpose of having more trams allotted to them, by which they may cut a greater quantity of coal, and so earn a greater amount of wages. A week or two ago a collier from Cowchrewe went to the workhouse at Merthyr, and selected a boy, a smart, active little fellow, an orphan, seven years of age. He applied to the guardians for the boy, stating that he wanted to adopt the child, and would send him to school. He produced a good character, and upon giving a promise that the boy should be sent to school, the guardians parted with the child. Last Friday the guardian of the district visited the local school, and not finding the boy there, called at the workman's house. The child was not there, and on enquiry of the man's daughter, a young woman, she, not knowing the guardian's errand, said the boy had been taken into the colliery by her father, in order that he might get more trams. The master was brought under the notice of the guardians on Saturday, when it was resolved that the child should be taken back immediately, and the infringement of the law by the workman reported to the Government Inspector of Mines.

The survey of the Gnoll Collieries, near Neath, has been completed, and it is said immediate steps will be taken for their re-opening, the new engine-houses and plant being about to be erected on the old site.

A dispute arose three months ago between the proprietors of Powell's Duffryn Steam Coal Company and their workmen, in consequence of the former discharging a weigher, whose cause the men defended. This led to a strike and lock-out, and since that time the collieries have been at a standstill. It is reported that the men intend suing the masters for a month's wages, in lieu of a month's notice; but, judging from the manner in which the men left their employment, little doubt can exist as to their finding themselves on the wrong side.

The Gadlys Uchaf Tin-Plate Company commenced operations at their new works on Thursday. The first tile sheet was drawn through the rolls on Thursday afternoon, by Miss Parry, daughter of one of the principal partners, the result being hailed with loud cheers. In the evening the masters, employees, and a number of ladies and gentlemen visitors, including a number of dissenting ministers, sat down to an elegant and substantial dinner, in the dining room, which was beautifully fitted up and decorated for the occasion. Several addresses were delivered, interspersed with vocal and instrumental music.

The arrivals at Swansea include—the Picton, from Drammen, with 200 tons of nickel ore, for Vivian and Son, and 120 pieces of props, for G. E. Bird and Co.; Kappa, from Guayaquil, with 540 tons of bar copper, 250 tons of ingot copper, and 4 tons of silver ore, for H. Bath and Son; Clio, from Motril, with 100 tons of calamine (zinc ore), and 120 tons of Esparto fibre, for A. W. Bell; Berbice, from Quebec, with timber, for Messrs. Thomas Williams and Co.; Laura Griffith, from Drammen, with 108 tons of nickel ore, for Messrs. H. Vivian and Son; Admiral Fitzroy, from Caldera, with 563 tons of copper regulus, to order; Havre, from Havre, with 20 tons of copper ore and 3 tons of old copper, for H. Bath and Son; Talbot, from Bilbao, with 103 tons of copper regulus, and 8 tons of copper ore, for H. Bath and Son.

of iron ore and 7 tons of copper ore, for Richards, Power, and Co.; Cuzco, from Coquimbo, with 500 tons of copper regulus and 95 tons of copper bars, to order; Canadian, from Lisbon, with 27 tons of copper ore, for H. Bath and Son, and 82 tons of ditto, for Richardson and Co.; Orion, from Bilbao, with 228 tons of iron ore, for W. H. Tucker; St. Jean of St. Vaan, from Cherbourg, with 214 tons of iron ore, for R. Crawshay; Henry Ranking, from Huasco, with 70 tons silver ore, 406 tons of regulus, and 8 tons of copper ore, for H. Bath and Son.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

SEPT. 10.—The Iron Trade shows no decided change, but it is satisfactory to find that there is a continual flow of orders of moderate amount, and generally the works are tolerably employed in every branch. As yet makers have not been able to get higher prices, many being below the list rates, which have not been at a less figure for many years past.

In reference to a remark made last week, we hear, on the most unexceptional authority, that Mr. S. Griffiths, though residing at Millfields, has no intention of entering into any department of the manufacture of iron. The name Millfields is now so constantly associated with the works there that its significance as a description of meadows, where some 200 years ago, when the Black Country was a stretch of verdant landscape, windmill stood, and ground wheat for the scanty population, is apt to be overlooked.

It is satisfactory that of late, except one or two accidental falls of coal, there has been a general absence of fatal mining accidents.

INCORPORATED ASSOCIATION OF MINE AGENTS OF SOUTH STAFFORDSHIRE AND EAST WORCESTERSHIRE.—We see this association has announced an excursion of its members to the far-famed Pendlebury and Pendleton pits, near Manchester, belonging to Messrs. Andrew Knowles and Sons, on Monday next. The former is employing a large pumping-engine underground, to force the water up the pit, 320 yards, without recourse to the expensive and cumbersome mode of rods, buckets, and the appliances of the old pumping method. This, no doubt, is well worth seeing. At Pendleton pit the coal is being gotten from under the town of Pendleton, at a depth from the surface of 720 yards. The pit is 520 yards deep. Messrs. Knowles raise about 20,000 tons of coal per week. After inspecting the pits, the members will proceed to the Leeds Exhibition, and return on Tuesday evening; and from the nature of the programme a very instructive and pleasing excursion is before them.

MINING, METALS, AND MINERALS—PATENT MATTERS.

BY MICHAEL HENRY,

Patent Agent and Adviser, Memb. Soc. Arts, Assoc. Soc. Eng.

There have been numerous applications for patents recently relating to metals and metal manufactures. Among these may be noticed JEAVONS, of Sheffield, and MARTIN, of Chancery-lane, the manufacturer of iron for plating vessels and fortifications, and fastenings connected therewith. COUCHMAN, of Noble-street, buttons, studs, clasps, and other dress fastenings and personal ornaments. SCHOLEFIELD, of Leeds, brick-making machinery. GILLOTT, of Chapel Town, and COBLEY, of Warren, machinery for cutting or getting coal, stone, and minerals. WRIGLEY, of Todmorden, furnaces. JACKSON and GARDISIDE, of Hull, roofs and flooring tiles. PATON, of Birmingham, metallic bedsteads. SMITH, of Barlington, New Jersey, smoke consuming apparatus. HOLMES, of Gracechurch-street, manufacture of gas; a communication from Thurston, of Hamburgh. MACRAY, of Castleford, glass furnaces. CORTAZZI, of New Cross, suspended iron ways and carriages for same; communication from Casimir de Forel, of Elizabethgrad, Russia. EVANS, of Wednesbury, machinery for finishing and welding iron and steel tubes. KIRK, of Glasgow, packing and storing ice; a communication from Kyle, of Foochow, China. JOHNSON, of Lincoln's Inn-fields, blue colour from aniline; communication from Zweifel, of Paris; WHITE, of Cheapside, preventing encrustation; communication from Popper, of Vienna. BUTTERWORTH, of Oldham, pump. SHARROCK, of Liverpool, metallic standards for posts and works. SLOPER, of Walbrook, perforating, punching, cutting, and stamping metal, &c. CRISPIN, of Stratford, artificial fuel. TATLOCK, of Frankfort, and ABELSETTO, of Philadelphia, manufacturing gas; communication from Stratton, of Philadelphia. BROOME, of Fleet-street, feeding and burning mineral oils and essences for lighting purposes; communication from Leplay and Noël, of Paris. MASSELON, of Issoudun, France, kilns for burning bricks, lime, pottery, and other articles. WANOSTROCH, of Walbrook, gunpowder and gunpowder mills. HOLLAND, of Chicago, compositions for artificial stones, tiles, pipes, cements, paints, and stuccos; a communication from G. A. Frear, of Illinois. COCORAN and W. DUNHAM, of London, dressing millstones. W. E. GEDGE, of Wellington-street, agglomerating coal; a communication from Messrs. Salaman, Freteur, and Troquier, of Paris. E. L. PARAIRES, of Mornington-crescent, working steam-engines. W. NAYLOR, of Mildmay-park, railway brakes. T. LESTER and W. TRUEMAN, of Stafford, steam-engines. J. FIELDHOUSE, of Birmingham, furnaces of steam-boilers. STOKES, of Aston, pearl ornament.

Two applications have been made on the same day, from Glasgow, with the same title, by different persons—TULE and STRANG, both for arrangements and apparatus for dealing with sewage.

THE NEW HAUPT ROCK DRILL.

We copy from the *Wrexham Advertiser* the following account of the working of the new Haupt Rock Drill, which was witnessed by the following gentlemen:—Mr. J. Taylor, C.E.; Mr. R. Roy, Brymbo Hall; Mr. G. Meakin, Birkenhead; Mr. Alex. McIntosh, C.E.; Mr. C. E. Darby, Brymbo Iron Works; Capt. Francis, manager of Lord Penrhyn's Slate Quarries; Mr. Dennis, C.E., Wrexham; Mr. Darlington, manager of the Minera Lead Works; Mr. F. Chamberlain, C.E., Wakefield; Mr. R. Ellerton, Langollen; Mr. Isaac Shone, mining engineer, Wrexham; Mr. Frazer

Hills. This was to show that without the application of the cap, which contained a charge of fulminate of mercury, the application of fire did not cause an explosion. After this illustration a number of practical experiments were gone through, the holes previously bored by the steam-drill being charged with dynamite, some were tampered with sand and others with water, and on firing large masses of rock were dislodged, though very small charges were used. One charge of 1½ lb. was placed in a horizontal bore hole of 9 feet in length, and though it was evident by the explosion that the tampering had not been well done, still nearly 1000 tons of rock must have been effectively detached. The experiments proved dynamite as a blasting agent to have at least six times the power of ordinary powder, that it could be used as effectively in wet and dry places, and that it may be thrown about or fired without danger of explosion in the absence of the copper cap. Dynamite is so insensible to concussion that it can only be exploded by a very strong charge, and it possesses the further advantage that the crevices in the rock or ore can be charged with it without previous boring. The cost of the powder is about 2s. 6d. to 3s. per lb., which is considerably cheaper than nitro-glycerine.

GOLD FIELDS AND COAL FIELDS OF NATAL—No. II.

It is confidently anticipated that the continued prosecution of gold mining will in a few years transform the social conditions of Natal, since not only is Natal the shortest and best high road to the diggings, but it is urged that no other track, whether through the Cape or elsewhere, offer so many advantages; capital wagon roads exist the whole way, there is plenty of water at all times of the year, and the pasture is the best in South Africa. The Mining Association and the Natural History Association have been well occupied, and the latter society has been honoured by the Governor presiding at one of their meetings. This courtesy has given great satisfaction, being considered as affording a pleasant proof of the interest taken by the Queen's chief representative in this colony in a movement so closely connected with the mental development of the community, and the acquirement of knowledge concerning the natural conditions of the country. His Excellency's remarks were highly pertinent and practical, and were calculated to lead his listeners to engage methodically in those pursuits which it is the province of the society to promote. At the meeting in question Dr. Sutherland, the Surveyor-General, read a paper on the Geology of Natal, and, perhaps, no subject of a scientific character could have been more opportune than that presented by the geological conditions of the land. The desire to find mineral wealth directed the thoughts of all classes during the last few months to the consideration of questions nearly allied with geology. Dr. Sutherland took up a comprehensive range of treatment. He began with the seashore, and pointed out how the Bluff, in common with the sea-fronting range of hills generally, was but a hardened and heightened edition of the sand dunes of the back beach, and how the Bora was probably an earlier creation by the same agencies—wind and water—that had thrown up the lesser earthworks in front. He traced the connection of the shales of Maritzburg with like formations in other parts of the Umzimvuna, and the fossil plants found at the Bushman's river and elsewhere in the upper districts, being the only exceptions. He pronounced several of the fossil plants to belong to the true carboniferous series, and we have no doubt that when further excavations are made the very limited knowledge we yet possess on this subject will be much extended. Dr. Sutherland appears to still hold the theory that the Natal coal deposits have been originally floating islands or masses of vegetable matter deposited where they are now found by the action of water. This may or may not be. The fact that coal abounds beyond the Kahlamba and far to the northward, where the Zambezi, beds of 40 or 50 ft. in thickness, are seen cropping out along the river side, may seem to favour this hypothesis. Dr. Sutherland only incidentally alluded to the geology of other parts of South Africa as when tracing a correspondence between Zwartkop, the Inhukuka, and Table Mountain near Cape Town. In South Africa the earth presents only large and broad features to the geological observer. Fossil remains of extinct organic life, so far as we have been at present discovered, are too few both in number and in class to offer that intensely interesting and fertile field of research which is enjoyed by the home student. Geological collections of Natal specimens are chiefly represented by fragments of rock, and by pieces of siliceous wood that are scarcely distinguishable from rock. But to the student of primeval forces and the topographer Natal has many interesting characteristics. The monotony of the far-reaching inland plains gives place on this side of the Kahlamba to a great variety of contour. Within a comparatively narrow compass they have conical and table-topped mountains, rounded savannahs swelling often into hills, sudden precipitous sub-sidences, deep depressions forming great natural basins; regions of contorted structure, such as the Inanda, the valley of the Tugela, and other river bottoms; abrupt up-croppings of quartz, granite, and other primitive rocks. To explain the origin, enquire into the relations, and define the order of these surface aspcts will in itself be a noble work for the local geologist, and Dr. Sutherland leading us well earned our thanks for having so clearly laid down certain leading principles of action.

The effect which the establishment of the profitable character of the South African gold fields—more especially if the coal fields be opened out as well—will have upon the commercial enterprise of the country cannot be estimated, and the majority of the colonists consider that Natal has now passed the turning point of her fortunes. To the settler of steady and industrious habits, having a few hundred pounds at his command, Natal offers advantages and opportunities surpassed in no colony of the empire. It possesses a magnificent climate, and a soil adapted, according to locality, for the cultivation of sugar, coffee, tobacco, wheat, and other products of the tropical and temperate regions—as also for cattle and sheep farming, horse-breeding, &c. The present is a very favourable time for settling in Natal, as, owing to special circumstances, lands of a first-class character can now be acquired upon unusually advantageous terms.

The indirect advantage to England will, of course, be considerable for the field which will be opened for British enterprise; but there are many individuals as well as public companies who will at once derive direct advantage. The Natal Land and Colonisation Company is, perhaps, more than any other entitled to be congratulated upon the advantage which the improved prospects of the colony will give them; whilst from the energy and ability of their general manager in Natal, Mr. C. Behrens, that advantage will certainly not fail to secure whatever benefits are attainable. The future of the South African colonies promises all that could be desired, and particularly so if the views of the colonists be carried into effect. It is considered that in South-Eastern Africa there is at this moment a less potent demand than there was in Abyssinia for British intervention, in order to sustain the influence of the Crown, and to promote the interests of our country among the native races around. But in this case no expenditure of Imperial money is called for; no strain upon the pocket of the British tax-payer need be made. By the mere uplifting of her flag to the northward of the Vaal river, by the mere proclamation of her supremacy in these territories as far as the Zambezi, England will not only constitute herself the dispenser of civilisation to these rich but distracted regions, but will be gladly and warmly welcomed by both their white and coloured inhabitants as the surety of their relief from intolerable disorder and misrule.

ESTIMATE AND PRICE BOOK.—A very useful volume, intended to facilitate the preparation of estimates for tenders for public works, has just been issued through Messrs. Atchley and Co., of Great Russell-street, Bedford Square, by Mr. W. DAVIS HASKOLL. It is very truly observed that there is no duty in which professional reputation is more directly concerned or more keenly affected for, if at an engineer's recommendation too high a tender has been offered, he may be open to the reproach of having caused the loss of a profitable undertaking; if too low, he is liable to the still more dangerous odium of causing his clients to lose large sums of money. These considerations have induced Mr. Haskoll to prepare work now under consideration, and which may be regarded as a kind of Engineer's Ready Reckoner. It shows at a glance for example, the probable total cost of excavating, filling, wheeling, and depositing, &c. In the various kinds of earthwork, distinguishing between light earths; as peat or cotton soils, dry sands, fine gravels or light loams; clay, shale, coarse heavy gravel, cobbles, marls, &c., rock, not requiring powder, and hard rock requiring to be blasted. Equally detailed information is given for masonry, brickwork, carpentry, timbering, &c.; and the value of the book is much enhanced by the addition of a large number of well executed plates and wood-cuts. The work contains all the particulars likely to be required by either engineers or contractors, whilst by way of appendix there is an interesting chapter by Mr. W. C. Glen, barrister-at-law, on the law of contracts which cannot fail to prove of frequent utility to those consulting the book.

THE GOLD REGION OF NOVA SCOTIA.—An elaborate report by Dr. T. STERRY HUNT, F.R.S., addressed to Sir W. E. Logan, F.R.S., director of the Geological Survey of Canada, upon the Gold Region of Nova Scotia, has just been printed by order of the local House of Commons. The rocks of this region consist chiefly of slates and quartzites; they are, however, cut in many places by intrusive granites, and in addition to these several small areas of gneissic rocks occur in different parts of the belt, but their true relations to the great mass of strata are not yet clearly made out. Leaving these aside, the rocks which cover the principal part of the area under consideration are, by Mr. Campbell, divided into the quartzite group and a clay-slate group, the latter conformably overlying the quartzites, and the two constituting one gold-bearing series; their measured thickness of these two divisions is, according to the same authority, nearly two miles; but the gold appears to be chiefly confined to the quartzite and the lower portions of the clay-slate division. The geological age of these rocks is uncertain; although comparatively little altered, they are without fossils, as far as yet known, and are very unlike the fossiliferous Upper Silurian and Devonian rocks met with in other parts of the province; at the same time, the high antiquity of the gold-bearing strata is shown by the fact that the carboniferous system rests upon their upturned edges, and is partly formed from their ruins. The veins of the gold series are affected by undulations running east and west, which have raised the strata to high angles, often approaching the vertical. According to Mr. Campbell there are not less than six principal anticlines exhibited on a transverse line of section extending from the sea-shore at the south-east entrance to Halifax Harbour northward to the Renfrew gold district, a distance of about 35 miles. The direction of these nearly parallel anticlines is about east and west; but to the westward they bend towards the south, and to the eastward in like manner disappear beneath the sea, between Cape Canseau and Liskecombe Harbour, with a strike, E. 30° S. In addition to the great east and west folds, the gold series is affected by a second series of more gentle undulations, having a north and south direction, and producing transverse anti-

clines, or the crowns of which the gold-bearing portions of the series are brought to the surface, while they are concealed not only in the great east and west synclines, but also in the north and south synclines, where these traverse the east and west anticlines. The total thickness of the series, as already stated, is estimated at about two miles. As far as yet observed, the gold is confined to the quartzite and the lowest portions of the overlying clay-slates. The gold mines of Nova Scotia belong to the Crown; and the law of May 10, 1864, regulates all questions as to the concession and working. In concluding his report Dr. T. Sterry Hunt remarks that it may well excite surprise that so little mining has yet been done in Nova Scotia, where gold is known to be spread over an area of not less than 6000 square miles, and where, notwithstanding the want of skill of the early adventurers and the lack of capital, such remarkable results have already been obtained. The lodes in this region, which are very regular in structure, have been shown to preserve their richness to depths of 200 and 300 ft., and from their geological relations there is every reason to believe will continue unchanged to the greatest attainable depths. To this it may be added that the price of labour is moderate, not exceeding \$125 a day; fuel, both wood and coal cheap and abundant; the region healthy, and easily accessible from abroad. When all these things are taken into consideration, it would appear that no other gold-mining region offers such inducements to the introduction of capital and skilled labour, and that these alone are required to make Nova Scotia one of the great gold-producing regions of the world.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN THE MATTER OF THE COMPANIES ACT, 1862, AND OF THE SITHNEY WHEAL METAL MINING COMPANY.—Notice is hereby given that all CREDITORS of the ABOVE-NAMED COMPANY are REQUIRED, on or before the 21st day of September instant, to SEND IN THEIR NAMES AND ADDRESSES, and the AMOUNTS and PARTICULARS of THEIR SEVERAL CLAIMS on the said company, to WILLIAM MICHELL, Esq., the Registrar of the said Court, at Truro.—Dated Truro, September 9th, 1868.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Devon.

IN THE MATTER OF THE COMPANIES ACT, 1862, AND OF THE LADY BERTHA MINING COMPANY.—TO BE SOLD, under the direction of the Registrar of the said Court, by PUBLIC AUCTION, on Monday, the 14th September inst., at LADY BERTHA MINE, situate in the parish of Buckland Monachorum, within the said Stannaries, at Twelve o'clock at noon, in lots, the undermentioned

MINING MACHINERY AND MATERIALS, viz.:—
ONE 40 ft. DIAMETER WATER WHEEL, 4 ft. breast, cast-iron cylindrical axle; 1 crank; drawing machine arm; cast-iron segments, &c.

ONE 32 ft. DIAMETER WATER WHEEL, 3 ft. 4 in. breast; drawing machines and sheds, pumps various sizes, 50 fms. casings and dividers; 150 fms. ladders; shear, sheaves, and saddles; 16 ft. shaft rods; 43 pumps, various sizes; 211 in. matching pieces; 55 fms. ½ old chain; 2 capstan, rope, and chain; 2 plates iron; 1 7 in. plunger pole; 1 case, with stuffing box and gland; 1 9 in. plunger pole; 1 10 in. case, with stuffing box and gland; stable, flooring of loft, stairs and manger, corn chest; 6½-cwt., 1 9 in. qr.-cwt., 2 large brasses of water-wheel, 2 small ditto; lot of iron shovels; 21 fms. 9 in. lift, 21 fms. 6 in. ditto, 12 fms. 6 in. ditto; 53 fms. casings and dividers; 53 fms. bucket rods; 40 fms. main shaft rods; 53 fms. punch road wood; poppet head and sleeve; 2 punches; shaft bob; 2 flights of stairs from floor to office; 29 fms. ½ old flat rods, 10 fms. ½ ditto; 800 fms. railway iron; tram wagon; legs and brace pieces, and horizontal sleepers; crusher, balance bob, sweep rod to wheel; hatches, strakes, types, &c.; roll splindles; grinder roll, 2 ft. diameter; triangle for taking out rolls; dressing offices and dry; ore stage and barge stage; lot of new and old timber; new and old iron; smiths' and miners' tools; account house and office furniture; and a variety of other articles and effects in general use in mines.

A punctual attendance is respectfully solicited, as the lots are numerous. The sale will commence precisely at Twelve o'clock (with machinery pitwork and train iron), as the whole of the material will be sold in one day. For further particulars, apply to the officer in charge thereof for the Court. HODGE, HOCKIN, AND MARRACK, Truro
Agents for Tufnell Southgate, Solleitor, 7, King's Bench-Walk
Temple, London. Dated Truro, Sept. 2, 1868.

In Chancery.

WRIGHT V. WRIGHT.

ADVERTISEMENT FOR TENDERS.

PERSONS DESIROUS to TENDER for the COLLIERIES and BRICKWORKS of THOMAS NORTH, late of Basford Hall, in the county of Nottingham, coalmaster deceased, the testator in this Cause, are, on the 3d day of November, 1868, to SEND IN TENDERS for the PURCHASE of the said COLLIERIES and BRICKWORKS under sealed covers, marked "Wright v. Wright," directed to JOHN ARTHUR BULLEY, Esq., the Clerk of Vice-Chancery Sir RICHARD MALINS, at his Chambers, situated at No. 3, Stone-buildings, Lincoln's Inn, London, by whom such tenders will be opened at Two o'clock in the afternoon of that day, when all parties tendering are at liberty to attend.

Fail particulars of the property to be tendered for, and the form of tender, may be seen at the office of Messrs. WELBY and WING, Nottingham, the plain-tiff's solicitors, between the 31st of August and the 20th of October, 1868, both inclusive.

The plaintiff, who is a mortgage creditor for a large amount of the testator, has, under an Order of the Vice-Chancery, obtained leave to tender for the property, and a right has by such order been reserved to him, subject to the consent of the defendant and the approval of the Court, to elect, on or before the 17th November, 1868, that neither of the tenders made should be accepted, in which case the property will be sold by auction, with the approval of the Court, in the course of the ensuing year; but failing such election, consent, and approval within the period aforesaid, the highest bidder will be accepted, on the condition of the party making it signing on or before the 30th of the same month, and in this respect time is to be deemed of the essence of the condition. A formal contract as to payment of deposit (not exceeding 5 per cent.), commencement of abstract, title, time for completion of purchase, and all other necessary provisions, to be approved of by the Court, and submitted to the said party on or before the 20th of the same month of November.

J. A. BUCKLEY, Chief Clerk.

EXTENSIVE AND VALUABLE MINERAL PROPERTY,
MONMOUTHSHIRE.

MESSRS. HUMBERT AND COX are favoured with instructions from the proprietors to SELL, BY AUCTION, at the New Auction Mart, London, on Wednesday, the 23rd day of September, 1868, at Two o'clock, in One Lot, the VALUABLE MINERALS in and under 800 acres, comprising—

COAL, IRONSTONE, LIMESTONE, FIRE-CLAY, &c.,
Situate in the parishes of LLANHILLETH and TREVETHIN, about a mile from the Aberbeeg Junction, and half a mile from the Llanhilleth Station on the Western Valleys branch of the Monmouthshire Railway, and about four miles from Pontypool; together with the SURFACE, comprising about 700 acres of unenclosed mountain pasture, and an enclosed FARM of 97 acres, called Blaen Cuffin.

May be viewed by applications to Mr. THOS. HALL, the tenant, at Blaen Cuffin, and full particulars may be had at the Auction Mart; of Messrs. TAYLOR and SON, solicitors, 3, Field-court, Gray's Inn, London; and of Messrs. HUNTER, SWAINSON, and HUNTER, 9, New-square, Lincoln's Inn, London; and of Messrs. HUBBERT and COX, estate agents and surveyors, 88, St. James's-street, London, S.W.

WHEAL MARGERY MINE, ST. IVES, CORNWALL.

THE WHOLE of the MACHINERY and MATERIALS, consisting of a 45 inch cylind. STEAM PUMPING ENGINE; a 20 inch WINDING, STAMPING, and CRUSHING ENGINE, with BOILERS, complete; about 120 tons of 7, 9, 10, 11, and 12 inch DITTO PITWORK, and other MATERIALS and PLANT, together with the SETTS and LEASES, are hereby OFFERED FOR SALE, in ONE Lot, TRENTER.

Capt. JAMES, on the mine, will afford every facility for inspection, and further information may be obtained of Mr. SAMUEL HIGGS, Purser, Penzance. Tenders for the above will be received on the mine on Wednesday, the 23d inst., at noon.—Dated Sept. 4, 1868.

TO BE LET—MINES IN CARDIGANSHIRE.

NANT-Y-CRIA AND DYFFRYN CASTELL.

THE COMMISSIONER OF WOODS, &c., in charge of HER MAJESTY'S LAND REVENUES IN WALES, is prepared to RECEIVE APPLICATIONS for LEASES of the NANT-Y-CRIA AND DYFFRYN CASTELL MINE SETTS, which are situate in the parish of LLANBADARNAFWR, county CARDIGAN.

The DYFFRYN CASTELL MINE is situate in the valley of the River Castell, about two miles from Ponterwyd. It is about fourteen miles from the Port and Railway Station of Aberystwyth, about eleven miles from the Strata Florida station on the Manchester and Milford Railway, and about fifteen miles from the Llandilo station on the Cambrian and Mid-Wales Railways.

The NANT-Y-CRIA MINE SETT adjoins that of Dyffryn Castell, and the mine works are about two miles south-west from those of the Dyffryn Castell Mine.

Applications should be addressed to "The Hon. JAMES H. WOODS, &c., Whitehall-place, London, S.W." Applications for each sett should be separate, and each application must be accompanied by a remittance of 5s. to Mr. W. C. HIGGINS, the Receiver-General at the Office of Woods, to cover the cost of the plan, &c.

NORTH WALES—QUEEN'S FERRY, FLINT.

CLOSE TO THE RAILWAY.

TO BE SOLD OR LET, DESIRABLE FREEHOLD MANUFACTURING PREMISES, with ENGINE-POWER and LAND—a plot of about one acre, with substantial factories, engine-house chimneys, stable, outbuildings, and sheds, suitable for any manufacturing purposes. ENGINE of most recent construction, and BOILER nearly new. For further particulars, apply to JOHN TEMPLE, 32, Redcross-street, Liverpool.

FOR SALE,—A FIRST-CLASS SECONDHAND 8-horse power PORTABLE STEAM-ENGINE, of recent construction, by eminent makers.

NEW PORTABLE STEAM-ENGINES, from 5 to 25-horse power, of the highest order, on advantageous terms. Prize Medals awarded—Hamburg, 1867; Paris, 1867.

Apply to BARROWS and STEWART (late Barrows and Carmichael), Engineers, Banbury.

Royal School of Mines, Jermyn-street.

NOTICE.—ROYAL SCHOOL OF MINES.—
JERMYN STREET, LONDON.
The SESSION will BEGIN on MONDAY, the 5th of OCTOBER. Prospects may be had on application.

THE BRYN POSTIG MINE (LIMITED).—
Notice is hereby given, that the REGISTERED OFFICE of this company is REMOVED to No. 26, NICHOLAS LANE, LOMBARD STREET.

By order of the Board.

TO BE LET, THE ANTIMONY MINES OF GLENDINNING, near LANGHOLM, the property of Sir FREDERIC JOHN WILLIAM JOHN STONE, of Westerham, Baronet. The works have not been in operation since 1799, but they have just been carefully reopened, and now are in order for examination by parties desirous to carry them on; the distance is about twelve miles from Langholm Station of the North British Railway, which gives ready access to London, Liverpool, and other markets. Canonbie Colliery is on the line of the railway, where the price of coal is moderate, or it can be had at Langholm Station at nearly as moderate a price as at the coal pit.

Specimens of the ore will be seen at the mines, and information afforded on application to THOMAS C. BORTHWICK, Esq., Hopscamp, by Langholm; or Messrs. CAMPBELL, ESPIE, and BELL, W.S., Rutland-square, Edinburgh; or Messrs. JOHN and G. H. GEDDES, Mining Engineers, 9, Melville-crescent, Edinburgh.

TO IRONMASTERS AND OTHERS.

TO BE LET, and entered upon in February next, a VALUABLE CARBONIFEROUS LIMESTONE QUARRY, LOW BISHOPLEY, FROSTERLEY, county of DURHAM, contiguous to and connected by a branch line with the Wear Valley Railway.

Now in the occupation of Messrs. BOLCKOW, VAUGHAN, and Co. (Limited). Terms and further particulars may be had on application to Mr. R. F. MATHEWS, Shotton Hall, Ferryhill.—July 28, 1868.

TO COLLIERY PROPRIETORS.

UPWARDS of 6000 LARCH, 4000 OAK POLES, 100 OAK and OAK PLANKS upwards of 20 feet long; ELM COAL-PIT RINGS, ready cut, in stock.

RAILWAY WAGON WORKS, BARNSLEY.
MESSRS. G. W. AND T. CRAIK
 ARE PREPARED TO
 SUPPLY COAL AND COKE WAGONS
 OF EVERY DESCRIPTION,
 Either for cash, or by deferred payments through wagon-leasing companies.
 WAGONS PROMPTLY REPAIRED.

COAL WAGONS.

RAILWAY WAGONS, capable of CARRYING SIX TONS OF COAL, TO BE LET by the MONTH or YEAR, upon favourable terms.
 Address, B Box, Post-Office, Hereford.

LOCOMOTIVE TANK ENGINES FOR MINES AND COLLIERIES.

HENRY HUGHES AND CO., FALCON WORKS, LOUGHBOROUGH,
 Have ALWAYS IN PROGRESS, and can SUPPLY at short notice,
TANK ENGINES

To suit any gauge of railway and gradients from 1 in 16.

THE BEVERLEY IRON AND WAGON COMPANY (LIMITED),

MANUFACTURERS OF RAILWAY WAGONS, WHEELS AXLES, LORRIES, CARTS, WOOD WHEELS, &c., IRONWORKS, BEVERLEY, YORKSHIRE.

ESTABLISHED MORE THAN HALF A CENTURY.

THE TAVISTOCK FOUNDRY, IRONWORKS, AND HAMMER MILLS,

which have been carried on for more than half a century by MESSRS. GILL AND CO., and obtained a

HIGH REPUTATION FOR SHOVELS AND OTHER TOOLS as well as for

ENGINEERING AND FOUNDRY WORK, have been purchased by

MESSRS. NICHOLLS, MATHEWS, AND CO., BEDFORD IRONWORKS, TAVISTOCK.

For thirty years MESSRS. NICHOLLS, MATHEWS, and Co., have been the proprietors of the latter works, but are now about to remove to the

TAVISTOCK FOUNDRY,

where, having the advantage of a never-failing stream of water of upwards of 200-horse power, they will have increased facilities for speedily and satisfactorily executing all orders entrusted to them.

Address,—

MESSRS. NICHOLLS, MATHEWS, AND CO., TAVISTOCK FOUNDRY, TAVISTOCK.**EMIGRATION TO VENEZUELA.**

THE GOVERNMENT OF VENEZUELA have GRANTED a CONCESSION of an IMMENSE TERRITORY in GUAYANA, the most fertile and healthy province of Venezuela, for the purpose of COLONIZATION by the settlement of Emigrants from the Southern States of North America and from Great Britain.

For further particulars, see "THE EMIGRANT'S VADE MECUM, OR GUIDE TO THE 'PRICE GRANT' IN VENEZUELAN GUAYANA."

To be had of FREDERICK H. HEMMING, Consul for Venezuela, 25, Moorgate-street, E.C.; or of JAMES F. PATTISON, Director-General in Europe of the American, English, and Venezuelan Trading Company, No. 3, The Crescent, Americ-square, E.C. Price 2s. 6d.; or by post, 2s. 8d. in postage stamps.

Just published, price One Shilling; post free, thirteen stamps.

THE INVESTMENT PAMPHLET FOR 1868-9. The above-named small work contains a selected LIST OF MINES, both for INVESTMENT and SPECULATION, and gives short, but descriptive, accounts of some of the best mines of Cornwall, Cardiganshire, and the Isle of Man.

BY T. E. W. THOMAS,

3 AND 4, GREAT WINCHESTER STREET BUILDINGS, LONDON, E.C.

Now in the Press, and will be issued in October next.

A MINING ATLAS, DESIGNED TO CONVEY COMPLETE INFORMATION CONCERNING THE CHIEF MINING DISTRICTS IN GREAT BRITAIN AND THE UNITED STATES OF AMERICA.

BY THOMAS SPARGO,

GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C.

The work contains surface plans showing the geological formation of the various districts, and longitudinal and transverse sections of some of the most important mines in the United Kingdom, with observation upon their position, character, and working. Geological and parish maps of Cornwall, Devon, Cardiganshire, and the Isle of Man, showing height of hills, &c., have been prepared with the greatest care. Maps intended to illustrate the progress of mining in North America have been executed with great fulness and punctilious exactitude. A map of the United States and territories shows the divisions of each, with the mining districts of Nevada, Colorado, Idaho, New Mexico, Wisconsin, and the like of railways connecting the Atlantic and Pacific. Mr. Whitney, Commissioner for the Union to the Paris Exhibition, prepared map of the great mining region of Colorado for the occasion, and has presented the plates to the author, for this work. A surface map of California shows the position of the mines in that great mining region.

The work will embrace explanatory notes, definitions, and illustrations of mining terms—such as shaft, level, cross-cut, sink, slope, end, rise, pitch, &c. The work will contain upwards of fifty maps, plans, and sections. Price, 10s.; post, 10s. 6d.

THE VIEWS AND OPINIONS OF MR. RICHARD TREDINNICK, CONSULTING ENGINEER, ON BRITISH AND FOREIGN MINES AND MINING. Will be published 1st October, 1868, price 10s. 6d., 8vo, 320 to 354 pages. Special Selection of Mines for Investment upon application for a fee of £1.

LIST OF MINES REFERRED TO:

IRELAND.	Cook's Kitchen.	Mary Ann.
Mining Co. of Ireland.	Carn Brea.	Trelawny.
Wicklow Mining Co.	Trecroft.	Owles.
WALES.	Stray Park.	East Carn Brea.
Bwlch Consols.	North Pool.	Grenville.
Lisburn.	West Tolgas.	Great North Downs.
East Darren.	Great North Tolgas.	Great Redtack.
Minera.	Great South Tolgas.	North Roskar.
Parc.	Emily Henrietta.	North Trekskerby.
Great Laxey.	Providence.	South Conduarow.
North Laxey.	Lady Bertha.	Stray Park.
Cwm Darren.	South Cadron.	Bedford Consols.
Cwm Eryth.	East Cadron.	Margaret.
Cwymstwith.	West Cadron.	East Seton.
Mae-s-y-Safn.	Marke Valley.	Seton.
South Darren.	St. Ives Consols.	West Seton.
Summer Hill.	West St. Ives Consols.	West Bassett.
CORNWALL.	Cargoll.	North Bassett.
Basset.	East Pool.	South Frances.
Buller.	East Lovell.	West Frances.
Botta-laek.	Great Vor.	Sorridge Consols.
Caroline.	Frank Mills.	North Robert.
Pendene Consols.	Herodfoot.	Clifford Amalgamated.
Levant.	West Chilverton.	East Crofty.
Dolecoath.	Great South Chilverton.	North Crofty.
	Rose and Chilverton.	South Crofty.
	Jane.	East Bassett.
	Crown-chambers.	
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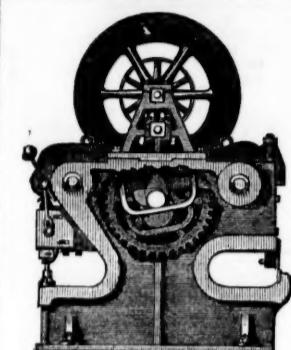
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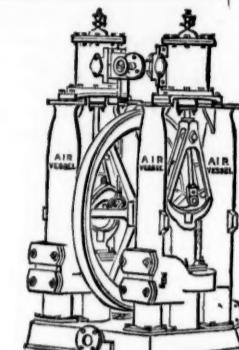
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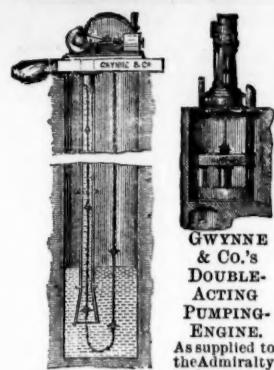
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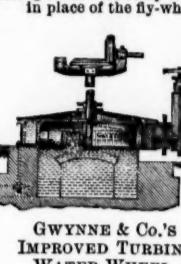


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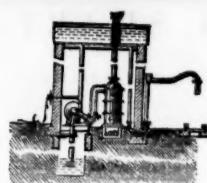


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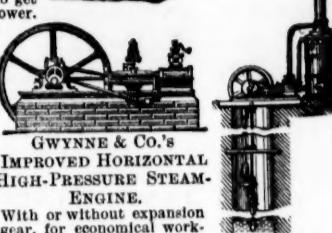
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200 Botallack, t, c, St. Just*	91 5 0..	..	458 15 0..	2 0 0..	May 1868
4000 Brookwood, c, Buckfastleigh*	1 11 0..	..	0 12 6..	0 2 6..	Aug. 1868
1000 Bronferry, t, Cardigan*	10 1 0..	..	10 1 0..	0 6 0..	Aug. 1868	..	..
5000 Bwlch Consols, s-t, Cardigan*	4 0 0..	..	0 1 6..	0 1 6..	Aug. 1868	..	..
6400 Cashwell, t, Cumberland*	2 10 0..	..	0 5 0..	0 5 0..	June 1868	..	..
916 Cargoli, s-t, Newlyn	15 5 7..	22 ..	14 15 0..	0 10 0..	July 1868	..	..
5000 Cwmbran, c, Gwent	1 1 0..	..	2 5 0..	1 5 0..	April 1868	..	..
5000 Cwmystrwyth, t, Cardiganshire*	7 16 0..	..	28 8 0..	0 15 0..	July 1868	..	..
128 Cymerau, t, Cardiganshire*	69 0 0..	..	383 10 0..	2 0 0..	Aug. 1868	..	..
280 Derwent Mines, s-t, Durham	300 0 0..	..	177 0 0..	2 10 0..	July 1868	..	..
1024 Devon Gt. Consols, c, Tavistock*	1 0 0..	420 ..	400 420 ..	1109 0 0..	7 0 0..	..	..
5000 Drift Mills, t, Perranz*	12 0 0..	..	0 10 0..	0 10 0..	Sept. 1867	..	..
656 Ding Dong, t, Gwylfa†	49 14 6..	..	852 10 0..	4 0 0..	Aug. 1868	..	..
536 Dolcoath, t, Camborne	128 17 6..	..	14 11 6..	0 2 0..	July 1867	..	..
6144 East Caradon, c, St. Cleer†	2 14 6..	23% 3%	14 11 6..	0 2 0..	July 1867	..	..
300 East Darren, t, Cardiganshire*	32 0..	..	160 10 0..	1 10 0..	June 1868	..	..
1200 East Pool, t, c, Pool, Illogan	24 5 0..	..	435 0 0..	2 10 0..	July 1868	..	..
1900 East Wheal Lovell, t, Wendron	3 9 0..	..	4 1 6..	0 10 0..	May 1868	..	..
2000 Foxdale, t, Isle of Man*	25 0 0..	..	71 10 0..	0 10 0..	July 1868	..	..
5000 Frank Mills, t, Christow	3 18 6..	..	134 1% 1%	3 5 6..	Feb. 1868	..	..
3350 Gawton, c, Tavistock	3 19 6..	..	0 3 0..	0 3 0..	Jan. 1868	..	..
1000 Great Laxey, t, Isle of Man*	4 0 0..	..	174 1% 1% 1% 1%	8 15 0..	0 10 0..	..	..
5000 Great Wheal Vor, t, c, Helston	40 0..	..	229 13 0..	6 0 0..	Aug. 1868	..	..
1024 Herodsfoot, near Liskeyard	8 10 0..	40 ..	39 41 ..	46 10 0..	1 10 0..	..	..
6000 Hindston Down, c, Calstock†	5 10 6..	..	0 10 0..	0 10 0..	April 1866	..	..
165 Levant, c, t, St. Just	10 8 1..	..	1095 0 0..	2 0 0..	July 1868	..	..
490 Lieburne, t, Cardiganshire	18 15 0..	..	509 0 0..	3 0 0..	July 1868	..	..
3000 Maes-y-Safn, t, Flint*	29 0 0..	..	3 15 0..	0 15 0..	Mar. 1868	..	..
3000 Marke Valley, c, Caradon	4 10 6..	7% 7% 7%	4 9 0..	0 4 6..	July 1868	..	..
3000 Minera Boundary, t, Wrexham*	1 0 0..	..	0 13 0..	0 3 0..	Mar. 1868	..	..
20000 Mining Co. of Ireland, c, t, cl.	7 0 0..	..	150 175 ..	28 9 0..	9 p.c.t. July 1868	..	..
40000 Myndy Iron Ore*	3 5 0..	..	0 8 6..	0 2 0..</td			